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ABSTRACT

A survey was conducted among 415 male associate degree holders from the 1965-1970 graduating classes of Quinsigamond Community College (Massachusetts) and approximately the same number of male high school graduates, of the same average age and academic ability, who had attended the same high schools but did not significantly pursue higher education upon graduation, in order to compare their socioeconomic status (SES) and job satisfaction levels. Additional comparisons were made between all of the responding high school graduates and terminal associate degree holders, and between these two groups and those who obtained bachelor's degrees after graduating from Quinsigamond, and with those who obtained a minimum of a master's degree. Findings indicated that Quinsigamond graduates exhibited significantly higher SES and job satisfaction levels. In addition, 59% of the responding Quinsigamond graduates had obtained a bachelor's degree and 15% had obtained a master's degree. It was concluded that the associate degree alone had a significant impact on Quinsigamond's alumni, while providing opportunity for further education for a substantial percentage, and that it was probably the best educational bargain available in terms of its efficiency and practical effect upon the lives of the recipients. (LH)

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A Comparison of the Socioeconomic Status and Job Satisfaction of Male High School and Community College Graduates

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EUGENE WHEELER BUTLER

A MAJOR APPLIED RESEARCH PROJECT
PRESENTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR
THE DEGREE OF DOCTOR OF EDUCATION

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Abstract of a Major Applied Research Project Presented to Nova University in Partial Fulfillment of the Requirements for the Degree of Doctor of Education

A Comparison of the Socioeconomic Status and Job Satisfaction of Male High School and Community College Graduates

By

Eugene Wheeler Butler

January, 1978

All of the male graduates of the first six graduating classes of Quinsigamond Community College were surveyed. Those respondents who had not continued their education beyond the associate degree were matched with high school graduates from the same high schools and of the same sex, age and academic ability. In addition to this comparison, all of the high school graduates were compared with all of the respondents whose highest degree was the associate degree from Quinsigamond without controlling high school of origin. These two groups were also compared to the bachelor's degree graduates and to those who had earned a minimum of a master's degree. Finally, data from the Quinsigamond graduates were distributed according to the year of graduation from Quinsigamond in order to analyze developing trends.

The t-test which compared the group of noncontinuing high school and Quinsigamond Community College graduates for differences in socioeconomic status of their current job titles was significant at the .007 level of confidence with the community college graduates exibiting the higher SES. One

of the measures of job satisfaction produced a t-test for these same two groups of subjects which was significant at the .012 level of confidence with the community college graduates exibiting the greater satisfaction. Furthermore, individuals with higher education averaged higher income in 1975, but these differences were not statistically significant. The Quinsigamond graduates who responded to this survey had an average income in 1975 of approximately $13,200. The class of 1965 averaged about $18,000 in 1975 as opposed to an average 1975 income of about $12,000 for the 1970 graduates.

It was concluded that Quinsigamond's associate degree alone has a significant impact upon the socioeconomic status and job satisfaction of its alumni in addition to offering the opportunity for more advanced education to a substantial percentage of its graduates. It was discovered that 59% of the respondents who graduated from Quinsigamond had obtained the bachelor's degree and 15% had obtained a minimum of the master's degree at the time of the survey. In light of these results, it was further concluded that Quinsigamond Community College has indeed served the function of a very significant 'democratizing agent' and has significantly improved the quality of life of its alumni.

In addition to the above, it was concluded that associate degree graduates and four-year college dropouts should not be grouped together under the same category label of 'some college' or '1-3 years of college', because these two groups are significantly different and a common category like

this encourages inaccurate overgeneralizations. In fact, the associate degree, it was concluded, is probably the best educational bargain which is available from an institution of higher education in terms of its efficiency and the practical effects it has upon the lives of its recipients.

Further study was recommended to discover the relationship between the dependent variables in this study and the variable of program of study. In addition, surveys of female graduates, more recent graduates and a longitudinal study of Quinsigamond's earliest graduates were recommended.

PREFACE

The challenge of the doctorate has taught me many lessons:

- I am my own worst enemy.
- The struggle for human perfection is extremely fulfilling and in direct opposition to the temptations of fun.
- There is a mystical element of human experience which is infinite in its power and source of satisfaction.
- The truth is a mystery and human knowledge is only a rediculously small approximation of it.
- Nothing is impossible.

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INTRODUCTION

Context of the Problem

Many people send their children to a community college, or attend themselves, in hopes of gaining some tangible advantage. There is, therefore, a general interest in the socioeconomic status (SES) and job satisfaction of community college graduates. The general public has supported the community college movement because, as Leland Medsker (1960) has said, "It is perhaps the most effective democratizing agent in higher education." There is a general public faith that attending college will help students realize the American dream.

The relatively recent growth in community colleges across this country was possible only because the public was so enthusiastic and supportive. However, the current financial crisis in education has resulted in an across-the-board, 10% budget cut in the community college system in Massachusetts and the subsequent dismissal of some of the staff at Quinsigamond and other community colleges. Higher education is a favorite target for budget reductions because the effects of such service cutbacks are not immediately noticed; and those who are most directly affected, the students, are not politically effective. There is, therefore, a critical need to assess and document the impact of a community college education upon social mobility so that both the general public and the legislature will become aware of the significant role of the community college in our society.

In addition to the concern over public funds, what is called "accountability" has become very important in higher education. This means solid evidence of quality teaching and significant learning is needed. The community college must lead the way in assessing the impact of its curriculum upon the lives of its alumni.

The community college faculty has been granted immunity from the "publish or perish" syndrome, and in return this faculty must provide ever improving teaching methods and ever improving records of student success. This does not mean merely inflated grade-point averages, which may be influenced by the needs and expectations of those assigning the grades. Some measure must be used other than assigned grades such as alumni achievement. Such a measure would offer a much more objective criterion of the success of a college than grades. However, many of the better community college graduates continue their education in four-year colleges and universities. It is these senior institutions that then claim these students as alumni; and the influence of the two-year college is then difficult to separate from that of the four-year college. Nevertheless, some kind of evidence must be pursued if the community college is to succeed in defending its unique purpose and its special curriculum.

Any evaluation of the community colleges must take note of the recent trends in the numbers and college placement of high school graduates. With the number of high school graduates beginning to dwindle, a vigorous competition has developed between institutions of higher education to attract these students. For example, the four-year colleges are beginning to look with increasing favor upon students in need of remedial courses, and they are beginning to provide the kinds of programs required by them. Such students as these were previously thought to be too inferior for senior institutions and were left for the community colleges to educate.

Thus the concern over public funds, the principle of accountability, and the developing competition between institutions of higher education all demand that community colleges objectively evaluate the contribution of their associate degrees in relation to such realistic variables as SES and job satisfaction. The relative success of the various institutions of higher education will probably depend upon their willingness to evaluate themselves openly and to commit themselves to doing those things which they do best.

Statement of the Problem

There is a need to investigate the practical consequences of attending a community college and of achieving an associate degree as distinct from the credentials and education received in a four-year institution. The primary purpose of this study was to compare the career achievements of young men who have graduated from Quinsigamond Community College with the career achievements of similar high school graduates who did not continue their education. This study examined most closely those Quinsigamond graduates who have not pursued their education significantly beyond the associate degree, these students were compared with high school graduates who have not pursued their education significantly beyond the high school level.

Perhaps because the community college is relatively new and perhaps because the effects of the associate degree are often masked by further training in four-year colleges, there is little evidence of the pure effects of a community college degree. However, studies comparing the achievements of students obtaining the high school diploma with various added levels of higher education are plentiful. (Berg, 1970; Blau and Duncan, 1967; Blum and Coleman, 1970; Coleman, Berry, and Blum, 1971; Collins, 1971) Research dealing primarily with the effects of college have included such categories as "some college","1-3 years of college", and "four-year college graduates", while ignoring the existence of and the possible effects of the associate degree. (Alwin, 1974; Daniere and Mechling, 1970; Goho and Smith, 1973; Reed and Miller, 1970; Stanfiel, 1973; Simmons, 1973) Those students who might have attained the associate degree are referred to in the above cited studies as students with "some college", or "1-3 years of college". Blau and Duncan (1967, p. 160) have referred to this group of students in a rather derogatory way as college dropouts:

> But the college dropout is a man whose not-quite-good-enough educational qualifications enhance the risk of a downward mobility from the high socio-economic level his father typically occupied, as implied by the father's ability to send him to college.

This kind of statement indicates that the author has ignored the associate degree by referring to all students with 1-3 years of college as dropouts. This practice is generally the rule. Blum and Coleman (1970) have referred to the category of "some college" in their study, as has Collins (1971), without having tried to investigate any differences between associate degree holders and those students who left college without achieving any degree. It may well be that the student who has begun a four-year commitment and has given up is doomed to a lifetime of downward mobility; however this is not an accurate description of the typical community college student. Many of these students have enrolled in college in spite of their parents. Many have paid their own expenses and may well have considered their education completed upon the receipt of the associate degree. The vocational-technical training offered at the community college may have attracted many students specifically because of the opportunities made possible after two years of college.

Furthermore, many community college students have come from families of relatively low socioeconomic status. This is not surprising, for those colleges were designed so that everyone could afford a college education: short commuting distances and low tuition costs are distinguishing characteristics which are supposed to encourage students with low status to enroll in college. It seems very likely, then, that there are significant differences between the high status college dropout and the low status associate degree graduate.

The relationship of education to the variables of major concern in this study has been the principle focus of a number of relatively recent studies.

Review of the Literature

Socioeconomic status (SES). SES has received adequate treatment in the literature over the last forty years. A very large number of studies have been conducted concerning the effects of SES upon the performance of students in schools and colleges. As one might expect, the research has indicated that high SES is generally an advantage. For example, it has been found to be related to better reading skills in sixth graders (Jantz, 1974), lower attrition rates in college (Stanfiel, 1973), and a higher probability of enrollment in college (Milner, 1972). However, research concerning the effect that education has on SES is not as available. A number of studies have been concerned with the effect of a four-year college degree upon SES, but many of these were primarily interested in the quality of the college attended and the differential effects resulting from the manipulation of this variable. Alwin (1974) discovered that, although gross differences exist in the achievement of alumni from colleges of varying quality, these differences vanish when variables such as the socioeconomic background, academic ability, and individual aspirations are controlled. Reed and Miller (1970) found race and field of specialization to be important when college quality was controlled. Daniere and Mechling (1970) have generally concurred with Alwin (1974) and have recommended the development of low cost institutions with selective admissions favoring students with high aptitudes. The results of these studies have been nicely summed up by the following statement by Robert Hauser (1974), who has said, "Being 'in' rather than 'out' of school is far more important than the school one attends." At more length Duane Alwin (1974) stated,

> At best only about one-twelfth of the explained variance in education and about one-fifteenth of the explained variance in occupational status is represented in differences in college attended. ...it is more likely that we have overestimated than underestimated these college effects.

Current research has supported the assumption that the relatively new and inexpensive community colleges should have an effect upon the SES of students equivalent to the effect of attending the first two years of a four-year college. Unfortunately, the studies cited above have ignored the two-year college and have not clarified the role that these colleges should play in their recommendations concerning the future of higher education. The conclusions of Daniere and Mechling (1970, p. 59) are typical of this type of research, as can be seen by their remarks below:

> A rough policy implication of the benefit-cost ratios is that additional college places should go in preference to students of higher college aptitude and should be created in low-cost institutions.

If these authors are suggesting that community colleges should discontinue their policy of open admissions, then they have suggested something that directly opposes one of the main bases of the popularity of community colleges and one of the principle reasons for the outstanding enthusiasm that these colleges have generated--to say nothing of their support in state legislatures. If the community college is to maintain its unique identity, it must respond in kind to challenges like this. The community college must establish the extent to which its admission policy, combined with its special curriculum has contributed to the American culture.

The line that such a search for evidence might take is this: a number of recent studies, referred to above, have indicated that 1-3 years of college work is far less advantageous than the achievement of the bachelor's degree and not significantly more advantageous than the high school diploma (Blau and Duncan, 1967; Coleman, Berry, and Blum, 1971; Goho and Smith). Furthermore, they have shown that the benefits of higher education often accrue shortly after credentials have been conferred, stating that, "some college or some high school is not very much better than none at all" (Coleman, et al. 1971). Assuming that credential completion and the occupational opportunities that follow have positive effects upon SES, it would be logical to expect that the associate degree would have a significant effect upon SES. If this deduction is valid, it would be especially significant in measuring the efficiency of the community college. The return on investment would be remarkably high relative to the investment in four-year institutions of residency in which the associate degree is awarded. However, none of the studies reviewed in this literature-search compared the SES of the holder of the associate degree with the holder of the high school diploma or the bachelor's degree.

A more recent study by Taubman and Wales (1974) has reported evidence which to some extent supports the basic hypotheses of this study. These authors have referred to their findings as surprising. They discovered that:

> ...except perhaps for the some college category, there is overinvestment in education from society's viewpoint.*

In light of this new evidence, the general conclusions of Milner (1972) below deserve reconsideration, since he too has ignored the two-year degree in his analyses.

> For some time we have been pushing on the rock that is the stratification system with the long limber rod of educational opportunity. Considering the lack of movement in the past, it seems doubtful that pushing a little harder will make much difference in the future. (p. 73)

This study has proposed to discover if the rock that is the stratification system has not indeed begun to budge from the added pressure being applied by the low-cost community college system.

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*They exempt M.D. and LL.B. degrees.

Higher status is important to college students, but finding work which is interesting and fulfilling is equally important. Many community college students have come from parents who have been employed in unchallenging jobs which are principally manual labor. The quality of life experienced by community college graduates is definitely influenced by the degree of job satisfaction they achieve after graduation.

Job satisfaction. This is another variable, in addition to that of SES, which has received much attention but not in relation to the associate degree. However, Angelo Gillie (1973) has one article that does deal with job satisfaction among associate degree holders. He found that recent graduates of two-year schools were not as satisfied, had lower salaries, and lower promotion rates than earlier graduates had. He therefore concluded,

> ...as far as jobs are concerned all the happy elements apparently occur together and it seems to hinge on being able to procure a job in line with their associate degree training. (p. 52)

In this paper, however, Gillie studied only the vocational-technical graduates and made no comparison between these students and comparable high school graduates or four-year college graduates with respect to their SES and job satisfaction.

Most of the research on job satisfaction centers on the relationship between it and performance on the job. Baldi De Mandilovitch and Quinn (1975), who were interested in the relationship between education and job satisfaction, had difficulty finding related research.

> A systematic search of published materials in the fields of sociology, psychology and education produced only 20 empirical investigations suited to our research interests. Of these only twelve included a direct analysis of the relationship between education and job satisfaction, and the rest dealt with other attitudes toward work. (p. 6)

Job satisfaction is related to the aspirations of the individuals involved and apparently the more education one has the greater one's expectations become. This fact combined with the data concerning achievement and satisfaction led Baldi De Mandilovitch and Quinn (1975) to conclude:

> While these analyses may serve to untangle the complex relationship between education and its occupational payoff in terms of job satisfaction, they will probably do little to alter the basic findings of ourselves and others: that the payoff is small indeed. (p. 12)

This may be an accepted fact, but nowhere in the literature has anyone compared the effect of holding the associate degree with that of holding the high school diploma or the four-year degree.

Robert Quinn (1975) has stated:

> The data therefore indicated that over-education is a problem affecting a sizeable percentage of the American work force--particularly those who have obtained some education at a particular institutional level (i.e. high school or college) but who have not obtained the diploma or degree usually awarded at that level. Their problem is not one of being educational "have-nots"; it is instead the more frustrating one of having not quite enough. (p. 8)

In all of the studies cited, except Milner (1972), it was agreed that credentials when conferred are significantly related to increases in pay, prestige, and job satisfaction, even though the financial return is not significantly greater than the financial investment required of the students to earn the credentials. However, the two-year degree has been largely ignored with regard to these two variables. The associate degree is a college degree and should be expected to yield some of the benefits that all of the other degrees seem to produce. There again, the associate degree from an inexpensive commuter college might well offer the most for the money as far as students and the general public alike are concerned. In light of the recent results reported by Taubman and Wales (1974), the effects of this relatively new diploma may just now be emerging. For those college students who lack the funds or the perseverance to stay in college four years, a degree after two years of effort and sacrifice could provide a much needed sense of completion. That degree might even be sufficiently rewarding to encourage some students to continue with their education rather than drop out from lack of positive reinforcement in the form of receiving a valid credential for their two years of effort.

Such a conclusion has been suggested by Simmons (1973) who investigated the return on investment that students realized as a result of participation in advançed degree programs. He discovered that financially, when the cost of education and inflation are controlled, advanced degrees (beyond the bachelor's degree) are either of no value or even detrimental to a slight degree. From the perspective that Simmons has taken, the associate degree should be the best possible investment in higher education, because the student sacrifices only two years of salaried employment , pays low tuition, and avoids the high cost of residency.

Statement of the Hypotheses

This study investigated the possibility that the associate degree may be the most efficient and most appropriate level of training for large numbers of students who want to pursue their education beyond high school. The following hypotheses were developed to study this possibility:

H_1 Quinsigamond Community College male graduates who do not pursue higher education significantly beyond the associate degree attain higher SES after graduation than do high school graduates from the same high schools, of the same average age and academic ability who enter the labor force without going to college.

H_2 Quinsigamond Community College male graduates who do not pursue higher education significantly beyond the associate degree attain greater job satisfaction after graduation than do high school graduates from the same high schools, of the same average age and academic ability who enter the labor force without attending college.

Rationale for the Hypotheses

It has been generally accepted as fact that the bachelor's degree is a significant aid to individuals who want to increase their SES and job satisfaction. There has been some dispute over how valuable the bachelor's degree is, but little dispute that it is of at least some value. The financial return on advanced degrees, however, has been seriously questioned, and there have even been reports of negative effects of overeducation upon job satisfaction. The associate degree would seem to be a logical solution to many of these problems. It would keep the cost of the first two years of college low and would thereby increase the proportionate return on educational investments at both the two-year and four-year levels. Moreover, the frustration experienced by many college students with 1-3 years of college would be reduced by the possession of at least one valid degree.

Finally, the recent findings of Taubman and Wales (1974) have pointed directly at the possibility that growing numbers of associate degree graduates may have turned the tide in terms of the realistic return on educational investments in the first two years of college.

The uniform tendency to ignore the associate degree in studies of this kind cannot continue in light of the very large numbers of college students currently acquiring this degree and the percentages of the tax dollars that have been invested in two-year colleges. Even Taubman and Wales used the phrase "some college" in their study and have not specifically investigated the effects of the associate degree. This study, however, has focused upon the associate degree and has compared it to other levels of educational achievement. Nevertheless, there were a number of restrictions which influenced how this study was conducted.

This study was limited by the degree of availability of high school and community college graduates following several years of employment. Furthermore, the fairly well established fact that sexual differences are significant in studies of this kind made it necessary to exclude this as a variable in this study. Therefore, only male subjects were considered and this minimized the problem of locating the subjects that were included because men do not change their

their names when they get married. In addition, only the earliest graduates of Quinsigamond were considered in order to minimize the two year advantage which the high school graduates obtained while those subjects in the Quinsigamond group were attending college. The two years of employment experienced by the non-college group could have produced an advantage for the non-college group if the two groups were compared immediately after the Quinsigamond group graduated from college. The longer the period after graduation from Quinsigamond, the more comparable the two groups become in terms of the length of time employed. The exact extent of the limitations of this study can only be clearly understood if the definitions of the terms used throughout this paper have been presented.

Operational Definitions

High school graduate. A student with a high school diploma from one of the cooperating high schools who has not enrolled in any college as a full-time student, and who has not taken more than three college courses as a part-time* student was considered a high school graduate in this study.

Cooperating high school. Any high school that has supplied at least one of the Quinsigamond graduates who responded to the survey, as well as at least one of the high school graduates who responded to the survey.

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*Question #10 on the survey was used to determine whether this criteria had been met. "Have you successfully completed more than three college courses as a part-time student?"..YES...NO

Associate degree graduate. A student who graduated from Quinsigamond and from one of the cooperating high schools, who has not enrolled in any four-year college as a full-time student, and has not successfully completed one, two, or three years of college work beyond the associate degree, and who has not obtained any degree beyond the associate degree.*

Yearly income. The income reported by the subjects, in five-thousand dollar increments as their gross personal income before taxes in 1975 was considered to be the yearly income of the subjects.

Socioeconomic status. The socioeconomic index assigned by Reiss (1961) in his list of 425 detailed occupational titles was used to determine the SES of the respondents' job titles as reported on the questionnaires which were returned.

Job satisfaction. Job satisfaction was measured by the subjects' responses to two multiple choice questions similar in design to those used by Hoppock (1935).

Significance of the Study

The community college movement was conceived and developed with the idea that further education would provide a higher quality of life for those students previously unable to procure a college education. If, in fact, attendance and graduation from a community college alone has not fulfilled this promise, as has been suggested by Blau and Duncan (1967), then the kinds of curriculum changes and restrictions suggested by Gillie (1973) should be given serious consideration. However, the failure of Gillie and others to determine the degree of success of similar high school students in their studies has made it difficult to determine whether the community college degree has actually helped or not.

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*Questions 11-15 on the survey were used to determine whether or not the respondents met the criteria for a noncontinuing Quinsigamond graduate.

In addition, the recommendation of Daniere and Mechling (1970) to provide low-cost institutions for students with higher college aptitudes has made the present study rather significant since their recommendation was a frontal attack upon one of the most unique features of the community college. The present study has sought to determine the contribution of at least one community college by objectively assessing its effects. In this way the decision to preserve its unique identity or alter it can be made according to objective evidence.

However, this study is only a small contribution to the mass of evidence that needs to be accumulated. Implications with regard to the overall role of the community college cannot be drawn from the results of this study, which has focused upon Quinsigamond alone. Nevertheless, the results of this study should be important to the community college system in Massachusetts and especially to Quinsigamond which has been so seriously affected by budget reductions and which is undergoing an accreditation review this year.

METHOD

Subjects

The subjects were 415, male, associate degree holders from the earliest graduating classes in Quinsigamond Community College and approximately the same number of male high school graduates, of the same average age and academic ability as the respondents from the college sample, who did not significantly pursue higher education and who graduated from one of the cooperating high schools.

Task

All of the subjects were asked to answer the questions on the questionnaire shown in Appendix A.

Independent Variable

The independent variable was the obtained level of education reported by the respondents.

Dependent Variables

Socioeconomic status and job satisfaction were the two dependent variables in this study.

Control Variables

Academic ability, age, high school quality, and sex were the control variables.

Procedures

There were two stages to this study. The first stage was a follow-up survey of all of the male graduates of the first six graduating classes in Quinsigamond. The second stage was a follow-up of matching, male high school graduates from the same high schools which produced the noncontinuing Quinsigamond respondents. The first stage had to be completed before the second stage could begin.

The first mailing to Quinsigamond alumni involved all of the male graduates in the first six graduating classes whose addresses were available. This original group numbered 415. The second mailing involved only those subjects who had not returned questionnaires and whose materials had not been returned by the post office as undeliverable. The remaining group of nonrespondents were pursued by means of a third mailing and a telephone follow-up.

The second stage began by contacting the thirty-three high schools from which the noncontinuing Quinsigamond respondents had originated. Thirty high schools agreed to cooperate if all materials were sent to them and if release forms were provided, signed by the respondents, before the class rank data were released. The first mailing to the high school graduates was followed with a second mailing which included a letter encouraging high school students who had not pursued higher education to respond to the questionnaire. Finally, directory information was requested from each high school which was still apparently cooperating. Additional mailings and telephone follow-ups were performed using this information. The release forms which were signed by the respondents were forwarded to the appropriate high schools. Each request for class rank data was accompanied by a stamped, self-addressed envelope.

During the first mailing of the second stage, the high schools were asked to mail between six and twenty questionnaires for each Quinsigamond respondent who had graduated from their schools. All of the materials and the postage required for the mailing was provided to each participating high school. The purpose of the study was explained to the chief administrator and to the guidance department of each cooperating high school either over the telephone or during an interview. Detailed instructions were mailed with the materials which outlined each and every step which was necessary to complete the mailing. This step-by-step process was outlined on a checklist which was returned by the high schools when the mailing was completed. Those high schools which did not return the checklist were contacted and an attempt was made to facilitate the mailing.

In addition to this, each high school was called shortly after the materials were sent in order to clarify any confusion over the procedures.

The high school personnel were directed to send questionnaires only to individuals within the same graduating class and who had graduated with a class rank within the same quintile as the Quinsigamond respondent or respondents. Some of the high school's had graduating classes which were too small to provide many male graduates within the same class and also within the same quintile. In these cases, the questionnaires were sent to graduates of the same class who were as close as possible to the rank of the noncontinuing Quinsigamond respondents who had graduated from that high school. One high school did not have class rank data available but matched the grades on the transcripts with those of the Quinsigamond respondents from that high school.

The questionnaire was printed on light green paper and was piloted in a survey of the first twenty-five male graduates of Quinsigamond's class of 1965. As a result of this pilot study one income category was added to the upper range in the two questions on income, and a zero was added to the question concerning the number of siblings in the respondents' family of origin. This pair of changes allowed the respondents to indicate that their 1975 income was as high as $25,000.00 whereas the original questionnaire had an upper limit of $20,000.00, and to indicate that they had no brothers and sisters whereas the original questionnaire had not provided for this possibility. Since these revisions were relatively minor, the data collected in this pilot study, concerning the eleven respondents of the class of 1965, were combined with the data collected from the other five graduating classes.

Endorsements were secured from the Governor of Massachusetts, Michael S. Dukakis, the Acting Assistant Regional Commissioner for Occupational and Adult Education in the Regional Office of the Department of Health, Education, and Welfare in Boston, Nicholas J. Hondrogen, and the Executive Director of the Worcester Consortium for Higher Education, Inc., Lawrence E. Fox. These letters of endorsement were photo-reduced and printed at the head of the questionnaire. In addition to these endorsements, Quinsigamond's Interim-President, Dr. Richard Offenberg wrote an encouraging note which was used as a cover letter and the investigator, himself, added an explanatory paragraph addressed to the recipients of the questionnaire.*

Data Analysis

The data on the questionnaires were recoded into numerical values and transferred to computer cards to facilitate the application of the Statistical Package for the Social Sciences. SPSS was used to analyze the data. Crosstabs analyses and t-tests were performed on all of the possible combinations of the independent and dependent variables using the noncontinuing high school and Quinsigamond graduates for these comparisons. In addition to these analyses, the subjects were regrouped into four distinct levels of education as follows:

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*A copy of the questionnaire including these endorsements can be found in Appendix A.

Level 1	High school graduates not reporting having enrolled in any college and not reporting having obtained any college degree.
Level 2	Quinsigamond Community College graduates who did not report having obtained the bachelor's degree nor any advanced degree.
Level 3	Respondents from either the high school sample or the Quinsigamond sample who reported having achieved the bachelor's degree but not having reported obtaining an advanced degree.
Level 4	Any respondent from either the high school or the Quinsigamond sample who reported having obtained an advanced degree.

These four levels were also used in the crosstabs and t-test analyses.

RESULTS

This study began with 415 Quinsigamond graduates. Of these, 77 never received the survey materials since the post office returned their envelopes unopened and marked "undeliverable" . Of the remaining 338, a total of 234 responded to the Quinsigamond stage of this survey. Of these, 73 met the criteria set by this study to define noncontinuing Quinsigamond graduates, and these came from 33 different high schools. Of these high schools, 30 agreed initially at least to cooperate with the first mailing. At the conclusion of the high school stage of this survey, a total of 99 high school students had responded and 23 of these met the criteria which defined noncontinuing high school graduates. This group of 23 came from 11 of the high schools which had originally agreed to participate in this study.

Hypothesis 1: Education and Resulting SES

H_1 Quinsigamond Community College male graduates who do not pursue higher education significantly beyond the associate degree attain higher SES after graduation than do high school graduates from the same high schools, of the same average age and academic ability who enter the labor force without going to college.

Quinsigamond graduates from the first six graduating classes obtained jobs with higher SES, as hypothesized, at the .007 level of significance. Table 1 below has been used to present the details of this statistical analysis. All of the subjects in these two groups represented in Table 1 met the criteria for noncontinuing high school and Quinsigamond Community College graduates.

Table 1

A Comparison of the Socioeconomic Status of
High School and Quinsigamond Community
College Graduates as Measured by
the Coded Job Title of the
Respondent's Current Job

Groups	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
H.S. Graduates	22	2.32*	-2.87	40	.007
Q.C.C. Graduates	20	3.25			

*Numerical scores from 0 to 98 were assigned after Reiss (1961). The higher the score, the higher was the SES.
0-19=1 20-39=2 40-59=3 60-79=4 80-98=5

Comparison Among the Four Levels of Educational Attainment

In addition to testing the hypothesis reported above, survey data were collected from persons who graduated from high schools other than the eleven cooperating high schools and from respondents who reported college training other than just the associate degree from Quinsigamond Community College. Two additional levels of higher education have been defined* beyond Quinsigamond's associate degree. Bachelor's degree recipients were grouped together whether they first attended Quinsigamond, another two-year college, or went directly into a four-year institution (Level 3). Respondents who reported having received a master's degree or a degree beyond the master's were also grouped together (Level 4) whether or not they first attended Quinsigamond, another two-year college, or went directly to a four-year college and then to graduate school. Level 4 includes a few doctorates and certificates of advanced study but the majority are master's degrees.

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*For a detailed definition of these four levels see page 25.

Four Levels and Resulting SES

All of the comparisons presented in Table 2 below were statistically significant with the exception of the comparison between the Quinsigamond graduates and the bachelor's degree graduates. In every comparison, socioeconomic status favored the higher level of educational attainment.

Table 2

A Comparison of Respondents at Four Distinct
Levels of Educational Attainment in Terms
of the Socioeconomic Status of Each
Group as Measured by the SES
of Their Current Job Title

Level	Group	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
1	H.S.	28	39.2	-3.55	42	.001*
2	Q.C.C.	98	56.7			
1	H.S.	28	39.2	-4.80	36	.000*
3	B.A.	123	61.9			
1	H.S.	28	39.2	-6.07	38	.000*
4	Adv.	47	68.3			
2	Q.C.C.	98	56.7	-1.85	194	.066
3	B.A.	123	61.9			
2	Q.C.C.	98	56.7	-3.95	135	.000*
4	Adv.	47	68.3			

*Statistically significant

In addition to the t-test above, a crosstabs analysis of this same data was conducted which provided a chi square significant at the .0000 level. Table 3 below shows the frequencies and totals in each of the five status categories. The lower the numerical value of the job title the lower was the socioeconomic status of the job held by the respondent.

Table 3

A Comparison of the SES of the Current Job
Titles of the Respondents from
Four Distinct Levels of
Educational Attainment

Level	0-19	20-39	40-59	60-79	80-98	N
1(H.S.)	8	6	8	4	2	28
2(Q.C.C.)	10	8	27	37	16	98
3(B.A.)	10	7	23	68	15	123
4(Adv.)	1	0	5	36	5	47
Totals	29	21	63	145	38	296
Percent	10%	7%	21%	49%	13%	

Raw chi square=50.2 with 12 degrees of freedom. Sig. = .0000

Furthermore, the respondents next previous job was also scored with regard to socioeconomic status and the results of that crosstabs analysis have been presented below in Table 4 which produced a somewhat significant chi square at the .027 level of confidence and which indicated a somewhat significant shift toward higher SES in connection with higher attained levels of education. The total number of respondents was lower as shown in Table 4 because fewer respondents answered this item on the survey. There is a pronounced bimodal distribution in Table 4 which was not evident in Table 3 above. This shift indicates the degree to which time influences socioeconomic status as measured by the job title of the respondents.

The central value of the lowest range (0-19) in Tables 3 and 4 is equivalent to the status assigned to taxicab drivers and chauffeurs. The central value of the middle range (40-59) is equivalent to the status assigned by Reiss (1961) to photographers and bookkeepers. The next to the highest range has a central value equivalent to the status of teachers and draftsmen (60-79).

Table 4

A Comparison of the SES of the Next Previous Job Titles of the Respondents from Four Distinct Levels of Educational Attainment

Level	0-19	20-39	40-59	60-79	80-98	N
1(H.S.)	14	3	4	4	0	25
2(Q.C.C.)	18	9	17	26	9	79
3(B.A.)	22	8	15	44	15	104
4(Adv.)	10	2	3	17	5	37
Totals	64	22	39	91	29	245
Percent	26%	9%	16%	37%	12%	

Raw chi square=23 with 12 degrees of freedom. Sig. = .027

Table 5 below indicates the socioeconomic status of the Quinsigamond graduates distributed according to their year of graduation from Quinsigamond. These individuals have attained a variety of levels of education and have been grouped together to show how time has influenced attainment of SES. The mode for each class remains in the next to the highest status category (60-79) for all of the six graduating classes, but a higher and higher percentage of the graduates are found at this level or above as the period since graduation from Quinsigamond increases.

Table 5

The SES of Current Job Titles of Quinsigamond Graduates from the First Six Graduating Classes

Year	0-19	20-39	40-59	60-79	80-98	N
1965	0	0	2	6	3	11
1966	0	0	1	1	0	2
1967	0	1	8	25	2	36
1968	4	3	6	27	10	50
1969	1	4	15	23	6	49
1970	11	6	20	35	7	79
Totals	16	14	52	117	28	227
Percent	7%	6%	23%	52%	12%	

Raw chi square=27.5 with 20 degrees of freedom. Sig. = .122

The extent to which Quinsigamond has stimulated socioeconomic mobility is of considerable interest to this study. Table 6 below displays the SES of the parents of the respondents at the time the respondents graduated from high school. There was an apparent bimodal distribution which revealed itself in this table. The lowest category and the middle range (40-69) of SES had the highest frequencies. However, the groups at various levels of educational attainment did not differ significantly with regard to this variable and the chi square was far from significant.

Table 6

A Comparison of the SES of the Parents of the Respondents at Each Level of Educational Attainment

Level	0-19	20-39	40-59	60-79	80-98	N
1(H.S.)	9	5	9	4	2	29
2(Q.C.C.)	22	19	32	14	7	94
3(B.A.)	35	30	33	16	8	122
4(Adv.)	18	6	15	6	2	47
Totals	84	60	89	40	19	292
Percent	29%	21%	30%	14%	7%*	

*Percentages total 101 because of rounding to nearest %.

The SES of the respondents' parents was measured by the socioeconomic index assigned by Reiss (1961) to the respondents' fathers' job titles at the time the respondents graduated from high school. If the father's job title was unavailable, the respondent's mother's job title was used for this purpose.

In Table 7 below, the extent of socioeconomic mobility achieved by each graduating class from Quinsigamond has been presented. With the exception of the 1966 class, which had a very low return rate, there is a consistent trend toward higher SES as the period of time since graduation increases. On the other hand, the SES of the graduates' parents has remained quite stable. This trend is especially clear in the 1967-1970 classes which had substantial sample sizes, very consistent parental status, and a steady increase in mean status among Quinsigamond graduates with time.

Table 7

An Analysis of the Socioeconomic Mobility
of Quinsigamond Graduates in the
First Six Graduating Classes

Year	SES of Parents	N	SES of Graduates	N
1965	48	11	72	11
1966	50	2	60	2
1967	38	36	66	36
1968	39	48	64	50
1969	38	51	62	49
1970	39	73	55	79
Totals		221		227
Mean	39		61	

A crosstabs analysis of the SES of the parents of Quinsigamond graduates, as shown in Table 8 below, reveals a bimodal distribution. The first (0-19) and the middle (40-59) categories had the highest frequencies. It should be noted that significantly fewer (20%) parents of graduates held jobs with status in the upper two categories as opposed to the relatively large percentage (64%)* of graduates who held jobs within the upper two categories.

Table 8

The SES of the Parents of Quinsigamond's First Six Graduating Classes

Year	0-19	20-39	40-59	60-79	80-98	N
1965	1	2	6	1	1	11
1966	0	0	2	0	0	2
1967	11	8	10	5	2	36
1968	14	9	17	5	3	48
1969	17	12	11	7	4	51
1970	22	17	18	11	5	73
Totals	65	48	64	29	15	221
Percent	29%	22%	29%	13%	7%	

The SES scale used in this study (Reiss, 1961) has a range of 0-99. In this study the number 99 was used to designate missing data, because there were no subjects reporting job titles which would require that value. A teacher on this scale would have a SES rating of 72. A foreman would have been given a rating of 49, and a janitor would have received a score of 9.

SES as Measured by 1975 Income

In addition to the coded job titles of respondents, as discussed above, the total personal income of the respondents in 1975 was also used as a measure of socioeconomic status. Table 9 below shows the comparison of the average income for the two groups of subjects who were controlled for age, sex, academic ability and high school of origin. The Quinsigamond graduates averaged slightly higher income, but the difference was not statistically significant. The mean in Table 9 below refers to the coded 1975 income which was reported by the respondents in $5,000 increments. There were six income categories which the respondents could have selected as follows: 1 = less than $5,000, 2 = less than $10,000, 3 = less than $15,000, 4 = less than $20,000, 5 = less than $25,000, and 6 = $25,000 or more. Therefore, a mean of 3.09, for example, would be equivalent to an average income just in excess of $12,500.

Table 9

A Comparison of the Socioeconomic Status of High School and Quinsigamond Community College Graduates as Measured by the Respondents' Coded 1975 Personal Income

Groups	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
H.S.	22	3.09	-.52	40	.603
Q.C.C.	20	3.25			

Four Levels and Resulting 1975 Income

As discussed above, income in 1975 did not produce statistically significant differences when the respondents at four levels of educational attainment were compared. The results of the crosstabs analysis have been presented below in Table 10. The mode in all four levels was uniformly in the "Under $15,000" category.

Table 10

A Comparison of the Total, Reported, Personal Income of the Respondents in 1975 in $5,000 Increments for Four Distinct Levels of Educational Attainment

Level	Under $5,000	Under $10,000	Under $15,000	Under $20,000	Under $25,000	Over $25,000	N
H.S.	1	7	12	5	3	0	28
Q.C.C.	4	17	44	24	5	2	96
B.A.	11	31	43	26	14	3	128
Adv.	3	7	23	13	2	2	50
Totals	19	62	122	68	24	7	302
Percent	6%	20%	40%	23%	8%	2%	

The average income for each level was calculated by taking the center of each category as an estimate of the mean income of all the individuals in each category. For example, the average income for the four respondents in the Quinsigamond group who reported income less than $5,000 was assumed to be $2,500, and the average income for the three individuals in the bachelor's degree level who reported more than $25,000 was assumed to be $27,500. This method of estimation resulted in the following mean incomes for each of the four levels of education:

28 High School Graduates Averaged	$12,857.
96 Quinsigamond Graduates Averaged	$13,281.
128 Bachelor's Degree Holders Averaged	$12,891.
50 Advanced Degree Holders Averaged	$13,500.

A total of 74 respondents reported that their income in 1975, as reported, was unusual for one reason or another. In these cases, 1974 income data were gathered and have been presented in Table 11 below. Once again the chi square for this table was statistically insignificant. However, the mean income of the Quinsigamond graduates on this item was higher than any of the other three groups.

Table 11

A Summary of the Income Reported in 1974 for Those Respondents Who Indicated Their 1975 Income Was Unusual

Level	Under $5,000	Under $10,000	Under $15,000	Under $20,000	Under $25,000	Mean	N
H.S.	1	2	3	0	0	$9,167	6
Q.C.C.	1	4	12	4	1	$12,500	22
B.A.	4	16	9	2	3	$10,147	34
Adv.	2	2	5	2	1	$11,667	12
Totals	8	24	29	8	5	$11,014	74
Percent	11%	32%	39%	11%	7%		

Raw chi square=12.6 with 12 degrees of freedom. Sig. = .399

The income of Quinsigamond graduates during 1975 has been distributed in Table 12 below according to the year the subjects graduated from Quinsigamond. Two-thirds of the male graduates from Quinsigamond reported incomes in 1975 of less than $15,000. Approximately one-fifth reported between $15,000 and $20,000 and only 11% indicated that they made more than $20,000 in 1975. The chi square for this distribution was not statistically significant.

Table 12

A Comparison of the 1975 Incomes of the First Six Graduating Classes of Quinsigamond Community College

Year	Under $5,000	Under $10,000	Under $15,000	Under $20,000	Under $25,000	Over $25,000	N
1965	0	0	3	4	4	0	11
1966	0	0	2	0	0	0	2
1967	0	7	17	8	4	1	37
1968	2	10	19	12	6	1	50
1969	4	11	17	18	0	2	52
1970	6	20	38	8	6	1	79
Totals	12	48	96	50	20	5	231
Percent	5%	20%	42%	22%	9%	2%	

As before, the center of each income category was used as an estimate of the average of those respondents in each category. The mean 1975 income for the alumni of each graduating class was estimated by multiplying the number of respondents in each income range by the central value of that range and then dividing by the total number of respondents in that class. The results of these calculations have been presented below in Table 13. The average 1975 income for all of the Quinsigamond respondents was $13,214. The range extended from an average for the class of 1965 of $17,955 to that of $11,930 for the class of 1970.

Table 13

A Comparison of the Estimated Average Income of Quinsigamond Alumni from Six Graduating Classes

Graduating Class	Average 1975 Income	N
1965	$17,955	11
1966	$12,500	2
1967	$14,122	37
1968	$13,800	50
1969	$12,981	52
1970	$11,930	79
Overall	$13,214	231

Hypothesis 2: Education and Resulting Job Satisfaction

H_2 Quinsigamond Community College male graduates who do not pursue higher education significantly beyond the associate degree attain greater job satisfaction after graduation than do high school graduates from the same high schools, of the same average age and academic ability who enter the labor force without attending college.

Quinsigamond graduates from the first six graduating classes obtained greater job satisfaction as compared to the high school graduates, as hypothesized, at the .012 level of significance. Job satisfaction was measured by asking two questions on the survey. Both of these questions produced differences which favored the Quinsigamond graduates, but only one of these differences was statistically significant. The first question, which produced the significant difference, required that the respondents compare themselves to other people and rate their degree of job satisfaction in terms of the percentage of people who they thought liked their jobs better than themselves. A five point scale was used which included categories from (1) "I like my work much better than most people like theirs," to (5) "I dislike my work much more than most people dislike theirs." The second question asked the respondents to estimate the amount of time that they felt satisfied with their jobs on a five point scale from (1) "Most of the time" to (5) "Seldom". The results of both of these questions have been presented in Table 14 below.

Table 14

A Comparison of the Job Satisfaction of High School and Community College Graduates Using Two Measures of Job Satisfaction

Job Satisfaction	Groups	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
Compared to Others	H.S.	23	2.43	2.64	40	.012*
	Q.C.C.	20	1.75			
Percent of Time Satisfied	H.S.	23	2.00	0.86	40	.392
	Q.C.C.	20	1.75			

*Statistically significant difference

Four Levels and Resulting Job Satisfaction

The results presented in Table 15 and discussed below were taken from the responses to the question on the survey which asked the respondents to compare themselves to others. The job satisfaction of the respondents at all four levels of academic attainment has been analyzed in Table 15. The lower the mean in this table the greater was the average job satisfaction. With the exception of the advanced degree holders, the average job satisfaction increased as the level of educational attainment increased. The advanced degree holders averaged exactly the same mean level of satisfaction as the respondents with bachelor's degrees.

Table 15

A Comparison of the Job Satisfaction of the Respondents at Four Distinct Levels of Educational Attainment

Level	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
1(H.S.)	29	2.38	.98	56	.329
2(Q.C.C.)	96	2.21			
1(H.S.)	29	2.38	2.42	49	.019*
3(B.A.)	126	1.98			
1(H.S.)	29	2.38	1.98	71	.052*
4(Adv.)	50	1.98			
2(Q.C.C.)	96	2.21	1.82	203	.071
3(B.A.)	126	1.98			
2(Q.C.C.)	96	2.21	1.33	95	.186
4(Adv.)	50	1.98			

*Statistically significant difference

The crosstabs analysis of the job satisfaction for these same four levels of educational attainment yielded a chi square of 20.5 which was marginally significant at the .059 level of significance. The details of this analysis have been presented below in Table 16. The mode in Table 16 shifts in the direction of greater job satisfaction as the level of education increases. Almost all of the respondents (95%) indicated that they liked their jobs at least as well as most people like theirs. However, only a small proportion of the high school group (3%) reported that they liked their jobs much better than most as compared to the rather large proportion (40%) of the advanced degree graduates who reported that they liked their jobs much better than most people like theirs.

Table 16

A Comparison of the Job Satisfaction of the
Respondents at Four Distinct
Levels of Educational
Attainment

Level	Liked Job Much Better Than Most	Liked Job Better Than Most	Liked Job About as Well as Most	Disliked Job More Than Most	Disliked Much More Than Most	N
H.S.	1	19	7	1	1	29
Q.C.C.	24	36	31	2	3	96
B.A.	45	47	29	2	3	126
Adv.	20	15	12	2	1	50
Totals	90	117	79	7	8	301
Percent	30%	39%	26%	2%	3%	

Raw chi square=20.5 with 12 degrees of freedom. Sig. = .059

Job Satisfaction of Quinsigamond Graduates

Job satisfaction was the second most important variable in this study. The degree of job satisfaction for each of the graduating classes from Quinsigamond has been presented below in Table 17. Two-thirds of the Quinsigamond graduates reported liking their jobs "much better than most people like theirs" or "better than most people like theirs". The respondents were about equally divided between these two responses and the chi square analysis did not reveal any significant relationship between job satisfaction and year of graduation.

Table 17

Job Satisfaction in Current Jobs of
Quinsigamond's First Six
Graduating Classes

Year	Liked Job Much Better Than Most	Liked Job Better Than Most	Liked Job About as Well as	Disliked Job More Than Most	Disliked Much More Than Most	N
1965	2	4	5	0	0	11
1966	0	1	1	0	0	2
1967	14	14	8	0	0	36
1968	16	17	14	1	0	48
1969	15	17	14	1	4	51
1970	24	30	20	4	3	81
Totals	71	83	62	6	7	229
Percent	31%	36%	27%	3%	3%	

Raw chi square=14.7 with 20 degrees of freedom. Sig. = .79

Other Comparisons Between Community College and High School Graduates

Age was considered an important variable in this study. Questionnaires were sent to high school graduates who were members of the same graduating classes as the Quinsigamond respondents who graduated from each high school. The extent to which age was actually controlled was measured by calculating the mean birthyear for each of the two groups and by performing a t-test on the two distributions. As has been shown in Table 18 below, the birthyears for both groups were almost exactly the same. The high school group had an average birthyear just below 1947, and the Quinsigamond group averaged just above 1947.

Table 18

A Comparison of the Average Birthyears of High School and Quinsigamond Community College Graduates in the Criterion Groups

Groups	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
H.S. Graduates	23	46.87	-.049	40	.628
Q.C.C. Graduates	20	47.15			

Four Levels and Age

As has been presented in Table 19 below, the average age of the groups did not differ significantly. The high school group and the Quinsigamond group had average years of birth which were exactly the same. Furthermore, all of the groups of respondents averaged between 29 and 31 years of age at the time the survey was conducted. The first three levels of educational attainment (high school, Quinsigamond, and bachelor's degree graduates) had means within one-tenth of one year of each other.

Table 19

A Comparison of the Average Year of Birth of the Respondents at Four Distinct Levels of Educational Attainment

Level	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
1(H.S.)	29	47.00	0	51	1.000
2(Q.C.C.)	99	47.00			
1(H.S.)	29	47.00	.20	56	.843
3(B.A.)	127	46.91			
1(H.S.)	29	47.00	1.70	70	.094
4(Adv.)	49	45.71			
2(Q.C.C.)	99	47.00	.26	224	.791
3(B.A.)	127	46.91			
2(Q.C.C.)	99	47.00	1.83	59	.072
4(Adv.)	49	45.71			

The graduating class rank in high school was also considered to be an important variable in this study. The degree to which this variable was controlled was determined by dividing each subject's class rank from the top of the class by the total number of high school graduates in his high school graduating class. The results of these calculations have been presented in Table 20 below. The mean rank ratio for the high school group was .6887 which means that the high school group had a slightly lower class rank than did the Quinsigamond group whose mean rank ratio was .6424. These ratios may be interpreted to mean that the high school group had an average rank in a class of 100, for example, of 69th from the top, while the Quinsigamond graduates in this comparison had an average rank in a class of 100 of 64th from the top. In a high school class of 50 their average ranks would have been 34th and 32nd from the top respectively.

Table 20

A Comparison of the High School Graduating Class Rank Ratios of the High School and Community College Graduates

Groups	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
H.S. Graduates	23	.6887	0.59	39	.558
Q.C.C. Graduates	20	.6424			

Four Levels and High School Graduating Rank

The graduating class rank ratios were averaged for each of the four distinct levels of educational attainment and are presented below in Table 21. Significant differences emerged between the high school graduates and the holders of the bachelor's degree and advanced degrees. However, the high school group and the Quinsigamond group did not have significantly different rank ratios. Furthermore, the Quinsigamond group (Level 2) did not differ significantly from the group of advanced degree holders. In fact, the rank ratio for the average holder of the bachelor's degree was closer to the top of his high school graduating class than was that of the average advanced degree holder in this study.

Table 21

A Comparison of the High School Graduating Class Rank Ratios* of Respondents at Four Distinct Levels of Educational Attainment

Level	N	Mean	t-test	Degrees of Freedom	Probability 2-tail
1(H.S.)	29	.679	1.06	48	.295
2(Q.C.C.)	99	.623			
1(H.S.)	29	.679	2.41	44	.020**
3(B.A.)	128	.554			
1(H.S.)	29	.679	1.94	67	.056**
4(Adv.)	50	.558			
2(Q.C.C.)	99	.623	1.94	212	.054**
3(B.A.)	128	.554			
2(Q.C.C.)	99	.623	1.31	89	.194
4(Adv.)	50	.558			

*The lower the rank ratio, the closer the subject was to the top of his high school graduating class.

**Statistically significant

A crosstabs analysis of this data, as shown in Table 22 below, revealed a shift in the mode toward the lower ratios (higher class ranks) as the level of education increased. However, the chi square for this table was insignificant.

Table 22

A Comparison of the High School Graduating Rank Ratios for Four Distinct Levels of Educational Attainment

Level	0-.19	.2-.39	.4-.59	.6-.79	.8-.998	.999	N
1(H.S.)	1	2	8	8	5	5	29
2(Q.C.C.)	5	17	22	30	10	15	99
3(B.A.)	12	26	35	29	10	16	128
4(Adv.)	6	12	11	9	3	9	50
Totals	24	57	76	76	28	45	306
Percent	8%	19%	25%	25%	9%	15%	

Year of Graduation from Quinsigamond and High School Rank

Six out of ten of the respondents who graduated from Quinsigamond were in the lower three-fifths of their high school graduating classes. This has not changed significantly over the six year period covered by this study. The chi square for Table 23 below, which displays this data, was far from significant.

Table 23

A Crosstabs Analysis of the High School Graduating Class Rank Ratios for Each of the First Six Graduating Classes from Quinsigamond Community College

Year	0-.19	.2-.39	.4-.59	.6-.79	.8-.998	.999	N
1965	0	2	4	3	1	1	11
1966	0	0	0	1	0	1	2
1967	0	6	11	10	4	6	37
1968	3	12	12	10	5	8	50
1969	1	9	12	14	5	11	52
1970	6	18	18	24	8	8	82
Totals	10	47	57	62	23	35	234
Percent	4%	20%	24%	27%	10%	15%	

Raw chi square=14.7 with 25 degrees of freedom. Sig. = .95

Three Levels of Educational Attainment and Verbal CEEB

Another traditional measure of potential academic success has been the College Entrance Examination Board scores. The verbal CEEB scores were available for many of the respondents at the three levels of college graduates and a comparison of their verbal CEEB scores has been presented below in Table 24. The Quinsigamond (Level 2), associate degree holders, had slightly lower verbal CEEB scores than the bachelor's degree holders and slightly higher scores than the advanced degree holders. It should be noted that all of these respondents were Quinsigamond Community College graduates who pursued higher education.

College Board scores were available only for subjects who had graduated from Quinsigamond. The average verbal CEEB score for all of the respondents represented in Table 24 was 421.

Table 24

A Comparison of the Verbal CEEB Scores of Quinsigamond Graduates and Respondents At Three Distinct Levels of Educational Attainment

Level	N	Mean	S.D.	t-test	Probability 2-tail
2(Q.C.C.)	87	418	81	-.85	.399
3(B.A.)	92	428	81		
2(Q.C.C.)	87	418	81	.36	.721
4(Adv.)	33	412	81		

These data were also subjected to a crosstabs analysis and a chi square test which was insignificant as shown in Table 25 below. A considerable number (83%) of these college graduates had verbal CEEB scores in high school which were below 500. Furthermore, 17 of the 33 advanced degree respondents for whom college board scores were available had verbal CEEB scores below 400.

Table 25

A Comparison of the CEEB Verbal Scores Obtained by Three Distinct Levels of Educational Attainment

Level	0-299	300-399	400-499	500-599	600-799	N
2(Q.C.C.)	4	36	35	9	3	87
3(B.A.)	4	28	41	17	2	92
4(Adv.)	1	17	11	3	1	33
Totals	9	81	87	29	6	212
Percent	4%	38%	41%	14%	3%	

Raw chi square=7.15 with 8 degrees of freedom. Sig. = .52

Year of Graduation from Quinsigamond and CEEB Scores

The academic ability of Quinsigamond graduates as measured by their high school, verbal CEEB scores has remained rather stable over the period covered by this survey. Graduates with verbal scores under 400 amounted to 42% of the entire sample. The crosstabs analysis and the chi square test, as shown in Table 26 below, have not indicated any significant relationship between the year of graduation and the verbal CEEB scores.

Table 26

A Crosstabs Analysis of the Verbal CEEB Scores for the First Six Graduating Classes from Quinsigamond Community College

Year	0-299	300-399	400-499	500-599	600-799	N
1965	1	3	4	2	1	11
1966	0	1	1	0	0	2
1967	3	11	13	7	2	36
1968	1	21	15	7	1	45
1969	1	17	24	6	1	49
1970	3	28	30	7	1	69
Totals	9	81	87	29	6	212
Percent	4%	38%	41%	14%	3%	

Raw chi square=12.3 with 20 degrees of freedom. Sig. = .91

Health since graduation from high school was considered to be an important and relevant variable. Two questions were used to measure this variable. The first question on the questionnaire concerned the respondent's self-perceived health on a five point scale from (1) "excellent" to (5) "poor". The second question asked the respondents to estimate the number of months they had been out of work because of illness since graduation from high school. These two items on health came close to establishing statistically significant t-tests when the distributions were analyzed. The level of significance for the question concerning self-perceived health was .117, and the level of significance for the item on the number of months ill since high school was .068. The Quinsigamond graduates were somewhat healthier than the high school group as measured by these two items, but the differences were not statistically significant. However, there was a very significant relationship between health and level of education attained when all four levels of education were used in a crosstabs and chi square test as shown in Table 27 below. Three-quarters of the bachelor's and advanced degree holders reported excellent health, while only two-thirds of the Quinsigamond graduates and only thirty-six percent of the high school graduates reported excellent health.

Table 27

A Comparison of the Four Distinct Levels of Educational Attainment with Regard to Self-perceived Health Since Graduation from High School

Level	Excellent	Good	Average	Fair	N
1(H.S.)	10	16	2	0	28
2(Q.C.C.)	65	27	6	0	98
3(B.A.)	94	25	5	2	126
4(Adv.)	37	12	1	0	50
Totals	206	80	14	2	302
Percent	68%	26%	5%	1%	

Raw chi square=22.1 with 9 degrees of freedom. Sig. = .0086

Four Levels and Source of Training

Twenty-three percent of the bachelor's degree holders and fourteen percent of the advanced degree graduates reported that they received training for their present jobs in a two-year college. The details of these results have been presented in Table 28 below.

Table 28

A Comparison of the Number of Subjects at Four Distinct Levels of Educational Attainment Who Reported Receiving Training for Their Present Job in a Two-year College

	H.S.	Q.C.C.	B.A.	Adv.	N
Frequency	0	36	28	7	71
N	29	93	123	49	294
Percent	0%	39%	23%	14%	

The subjects were also given the opportunity to indicate that they received their training for their current job while on the job as one of seven options. In Table 29 below, the highly significant chi square of .0001 has indicated a very significant relationship between the level of education obtained and the probability of being trained on the job.

Table 29

A Comparison of the Number of Respondents at Four Distinct Levels of Educational Attainment Who Reported Receiving Training for Their Current Position on the Job

	H.S.	Q.C.C.	B.A.	Adv.	N
Frequency	16	40	34	6	96
N	29	93	123	49	294
Percent	55%	43%	28%	12%	

Raw chi square=21.9 with three degrees of freedom. Sig. = .0001

Year of Graduation from Quinsigamond and Achievement of B.A.

Another aspect of this follow-up dealt with the degree of success experienced by Quinsigamond graduates in transferring to and graduating from other institutions of higher education. A considerable number (59%) of the male respondents from the first six graduating classes of Quinsigamond have obtained the bachelor's degree. The chi square of 11.4 was significant at the .04 level. The highest percentage (81%) of those alumni who responded was found in the class of 1967.

Table 30

Attainment of the Bachelor's Degree by Male Alumni of Quinsigamond Community College

	1965	1966	1967	1968	1969	1970	N
N	11	2	37	50	50	79	229
B.A.	6	1	30	26	32	40	135
Percent	55%	50%	81%	52%	64%	51%	59%

An even more significant relationship was discovered between the year of graduation from Quinsigamond and the probability of having obtained an advanced degree. The chi square for Table 31 below was significant at the .01 level. This statistical result along with that presented above in Table 30 suggests that time after graduation from Quinsigamond may have been an important variable which contributed to the determination of the proportion of graduates who have obtained an advanced degree.

Table 31

Attainment of an Advanced Degree by Male Alumni of Quinsigamond Community College

	1965	1966	1967	1968	1969	1970	N
N	11	2	37	50	52	82	234
Advanced Degree	1	1	15	8	4	7	36
Percent	9%	50%	41%	16%	8%	9%	15%

If this hypothesis is valid, a more restricted sample which would provide additional years after the attainment of the associate degree might well create a more accurate estimate of the proportion of Quinsigamond graduates who ultimately are destined to achieve an advanced degree. Therefore, the 1967 and 1968 graduating classes were selected and analyzed with regard to the proportion who have attained additional academic credentials. These two classes provided a fairly large sample of respondents, unlike the first two classes, and added two more years for these students to have spent pursuing additional degrees in comparison to the 1969 and 1970 graduating classes. The results of this more restricted selection have been presented below in Table 32.

Table 32

The Percentage of Male Quinsigamond Respondents
Who Graduated in 1967 and 1968 Who
Attained Additional Educational
Credentials

Year	Bachelor's Degree		Advanced Degree	
	#	%	#	%
1967	30/37	81%	15/37	41%
1968	26/50	52%	8/50	16%
Totals	56/87	64%	23/87	26%

This restriction substantially increased the percentage of Quinsigamond graduates who obtained additional academic credentials as compared to the sample taken from all six of the graduating classes. Approximately two-thirds of the 1967 and 1968 graduates obtained the bachelor's degree and over one-fourth obtained at least one advanced degree.

Other Relevant Variables

Race was measured in this survey. Only one respondent considered himself to be Black and nobody considered themselves American Indian or Chicano. As shown in Table 33 below, the controlled comparison groups of high school and community college graduates did not include a single minority group member.

The number of siblings older than the respondents produced a statistically significant difference when analyzed. The t-test was significant at the .005 level. The average number of siblings older than the high school graduates in this study was 2.13 while the average number of siblings reported older than the community college graduates was 3.45.

Table 33

A Comparison of High School and Quinsigamond Community College Graduates with Regard to Minority Status and Siblings

Variables	Groups	N	Mean	S.D.	Significance of t-test
Minorities	H.S.	0	0	0	.500
	Q.C.C.	0	0	0	
# of Siblings	H.S.	22	0.86	1.13	.417
	Q.C.C.	20	1.15	1.14	
# of Sibs.Older	H.S.	23	2.13	1.36	.005*
	Q.C.C.	20	3.45	1.50	

Marital status was thought to be a relevant variable in this study. It was not controlled but it was measured and the results have been presented in Table 34 below. A total of 71% of the respondents reported being currently married. This figure is somewhat lower than the 78% reported for 25-34 year old males (p. 37) in the 1976 Statistics Abstracts of the United States. Only one respondent neglected to answer this item.

Table 34

The Marital Status of the Male Graduates of the First Six Classes from Quinsigamond Community College

Year	Single	Married	Divorced	Remarried	N
1965	0	9	1	1	11
1966	1	1	0	0	2
1967	4	32	0	0	36
1968	7	39	1	3	50
1969	12	37	3	0	52
1970	30	47	5	0	82
Totals	54	165	10	4	233
Percent	23%	71%	4%	2%	

DISCUSSION

In this study over four hundred Quinsigamond Community College graduates (1965-1970) were sent survey materials. The questionnaires in this survey were intended to collect information regarding the current level of education, the socioeconomic status and the job satisfaction of the respondents. A group of about the same number of high school graduates were also sent survey materials. Two groups of respondents who had not continued their education were obtained from these samples and these were matched to the community college graduates on the control variables of age, sex, academic ability and high school of origin.

This comparison between the noncontinuing high school graduates and the noncontinuing Quinsigamond graduates was augmented by the more comprehensive but less well controlled comparison of four distinct levels of educational attainment. The four distinct levels were defined according to the highest degree earned as follows: (1) high school graduates who may have had some college without earning any college degrees, (2) Quinsigamond graduates who may have attended other colleges after Quinsigamond but have not earned additional degrees, (3) bachelor's degree holders some of whom attended Quinsigamond and some of whom went from high school to some other college and earned the four-year diploma, (4) any respondents who*

*72% of level 4 respondents graduated from Quinsigamond and 73% of level 3 respondents graduated from Quinsigamond.

reported having earned a minimum of a master's degree whether or not they attended Quinsigamond.

More than two hundred Quinsigamond graduates responded to this survey. Most of these respondents were students who continued their education beyond Quinsigamond Community College, but a small proportion of the respondents met the criteria established in this study for comparing the noncontinuing Quinsigamond graduates with the noncontinuing high school graduates. Of this small proportion, a total of twenty graduated from the group of eleven cooperating high schools which also produced twenty-three noncontinuing high school graduates.

The more comprehensive comparison, which took advantage of nearly all of the over three hundred respondents, produced considerably larger numbers in the four distinct levels of education. Thus a total of twenty-nine high school graduates fell into Level 1, because they did not report having received any college degree. In addition, just under one hundred Quinsigamond graduates did not report receiving further college degrees; while over one hundred respondents reported receiving the bachelor's degree (Level 3). Advanced degree graduates who responded to this survey numbered fifty. The information provided by this more comprehensive analysis of the data has augmented the evidence provided by the two relatively small and controlled experimental groups.

A number of factors combined to contribute to the relatively small sample size of the two noncontinuing control groups. One of the most important factors was the recent legislation governing the control of student records. This legislation prevented the investigator from having access to high school records without the signed consent of each of the high school graduates involved. Therefore, if any information was to be obtained regarding high school graduates a considerable amount of work was required of the high school administrators. Secondly, the relatively high density of graduate schools in Massachusetts has created an unusually high demand for information needed by graduate students to complete projects and dissertations. These two factors combined to reduce the number of cooperating high schools to eleven that actually produced at least one student in each of the noncontinuing groups. It is not surprising then that studies like the present one are difficult to find in the literature.

There follows a discussion of findings with respect to a number of factors that would seem to have social and cultural significance.

Socioeconomic Status

The experimental groups which were essentially equivalent with regard to the four control variables of age, sex, academic ability and high school of origin were compared with regard to their respective members' current job titles and their 1975 incomes. The Quinsigamond graduates had jobs with average socioeconomic indexes which were significantly higher than those of the high school group at the .007 level of confidence. Average income in 1975 was slightly higher for the Quinsigamond graduates as compared with the high school graduates, but this difference was not statistically significant.

In addition to this controlled comparison, data on the income of Quinsigamond graduates were collected with regard to all of the male graduates from the first six graduating classes, some of whom continued their education and some of whom did not. The average income of all of the over two hundred respondents was $13,214. Those Quinsigamond alumni who did not pursue their education beyond the associate degree had an average income in 1975 of $13,281 which was slightly higher than the overall average.

When these figures were compared with the average incomes of individuals at the three other levels of educational attainment, (high school, bachelor's degree holders, and advanced degree holders) it was discovered that the Quinsigamond graduates made approximately $10.00 per week more than both the high school and the bachelor's degree recipients, and about $5.00 per week less than the advanced degree holders. It should be noted that the average age of the individuals in each of these groups was the same with the exception of the advanced degree graduates who averaged a little over a year older than the average age of the other three groups. Nevertheless, those with bachelor's degrees and advanced degrees have had considerably less time to establish themselves in an occupation and their financial prognosis may be more favorable given a few more years of work experience.

Let us look at each level. The ninety-six Quinsigamond graduates whose highest degree was the associate degree averaged, as noted above, $13,281 in 1975 whereas the twenty-eight high school graduates in this comparison reported an average income of $12,857 for the same period. Even those with bachelor's degrees who spent four years studying reported slightly higher average income ($12,891) than did the high school graduates. As would hopefully be expected, the advanced degree graduates who may have spent six to eight years studying reported the highest average income of these four groups -- $13,500.

All of these groups had average incomes which were within $700 per year of each other. These findings are consistent with those of Simmons (1972-73) who concluded that advanced degree holders have no advantage with regard to income if the variable of tuition cost, as well as, inflation and several years of sacrificed income are considered. The point of the present study, however, is that of all of the college degrees available the associate degree requires the least amount of sacrificed income, a minimum of related expenses and, of course, the least amount of time spent in preparation.

Elapsed time after graduation seems to have an important influence upon the average income of Quinsigamond graduates. The 1965 class averaged almost $18,000 in 1975; whereas the class of 1970 averaged only about $12,000. One explanation of this difference might be that since the job market has become tighter in recent years, it has become progressively more difficult to obtain the higher salaries. This explanation would be consistent with the conclusions of Gillie (1973) who studied the careers of vocational-technical community college graduates. However, such an explanation does not account for a number of variables which have been investigated in this study. The SES of the job titles of the six Quinsigamond graduating classes did not vary significantly and neither did their job satisfaction. These facts seem to contradict Gillie's major conclusion that

> ...All the happy elements apparently occur together and it seems to hinge on being able to procure a job in line with their associate degree training. (p. 52)

Such a conclusion may well apply to graduates in "terminal programs" such as those studied by Gillie, but apparently should not be applied to all of the alumni of a comprehensive community college. It appears that Quinsigamond's alumni have been progressively pursuing advanced degrees in increasing numbers and have obtained jobs by 1976 which were equivalent in status and job satisfaction to the jobs held by the earliest Quinsigamond graduates who averaged almost $18,000 per year.

In view of the discrepancies between the findings of this study and those of Gillie in 1973, it seems that a second explanation is required. One can hypothesize that since many of these students have pursued the bachelor's degree or an advanced degree for a number of years, they may not have had sufficient time to advance in their jobs or professions. The six extra years which the 1965 graduates have had to advance themselves in comparison with the 1970 graduates has resulted in their obtaining a larger income of approximately one thousand dollars per year as shown in Table 13. Furthermore, income increased almost directly in proportion to the number of years since graduation from Quinsigamond. This alternative explanation indicates that perhaps all of the happy elements do indeed occur together if sufficient time has elapsed after graduation. This conclusion points up the need for additional follow-up studies of this kind especially at the older community colleges in Massachusetts. Specifically, Quinsigamond should follow the careers of her alumni in the years to come in order to determine whether income varies proportionately with elapsed time since graduation.

Although the community college system would like to be able to demonstrate that its degrees "pay off", there is no guarantee that the graduates of this system are going to take jobs just because they offer the highest possible income. The graduates of any institution of higher education may have been inspired with more than just an appetite for money. After expending considerable resources in the educational process, one would hope that graduates felt free to respond to motives other than maximizing income. In fact, it would probably be very wise for the young graduate to accept employment which was interesting, challenging and satisfying as well as offering a potential for future growth and financial rewards irrespective of the immediate salary. Furthermore, from the perspective of the high school graduate who did not pursue a higher education, it is apparently advantageous to spend the first few years after high school in college rather than in the labor force; for when the income of high school graduates is compared with the income of other groups at various levels of educational attainment, the income of the high school graduate is lower on average than that of any of the other three levels. (See Tables 2, 19, and 20)

Even more important than the achieved level of SES of Quinsigamond graduates is the issue of whether or not Quinsigamond has served the purpose of "democratizing higher education". Milner (1972), Jantz (1974), and Stanfiel (1973) have all reported various advantages of higher SES in relation to education such as the probability of enrollment, higher aptitudes, and lower attrition rates. However, the present study has discovered the reverse of this phenomenon. The advanced degree graduates in this study, for example, came from families with lower average SES than those respondents whose highest degree was the bachelor's, the associate, or even the high school diploma. These differences in the levels of SES were not statistically significant, but they were in the opposite direction of that which would have been predicted by Milner, Jantz, and Stanfiel. Furthermore, there was a considerable difference between the average SES of the families of origin of the Quinsigamond graduates and the achieved SES of the Quinsigamond graduates as measured by their current job titles. The SES of the twenty-nine high school graduates who did not pursue higher education (39.2) has remained exactly equal to that of their families of origin (39.2) at the time they graduated from high school. Whereas the average status of the Quinsigamond graduates increased by fifteen points from the time they graduated from high school (42.2) until the time of this survey when the status of their current jobs were measured (56.7). The bachelor's degree holders, many of whom (73%) started their college careers at Quinsigamond, increased their SES in the same period of time by over 22 points (39.6-61.9). The advanced degree graduates improved their average status 33 points (35.3-68.3), with the advantage of about one extra year of life over the other three groups in this comparison. It should be noted that the majority of the advanced degree graduates discussed above started their college careers at Quinsigamond (72%). This kind of social mobility is solid evidence that Quinsigamond has succeeded in "democratizing higher education", at least in central Massachusetts.

Finally, the willingness of Blau and Duncan (1967) to condemn the college dropout to a lifetime of downward mobility is apparently a conclusion which is unrelated to the reality of the community college graduate in central Massachusetts. For such a definition of "dropout" must logically include the associate degree holder who, as the present study has shown, has improved his status. Furthermore, Blau and Duncan are out of date regarding this matter in a society which has provided its citizens with the opportunity for lifelong learning through continuing education. In the current educational era, a four-year college dropout can counteract an unsatisfactory record by taking advantage of the open door policy at the community college, then reentering a four-year institution on the strength of his successful community college experience. A more precise description of the success of the community college in rehabilitating the casualties of other institutions is another area of research which should be pursued.

Job Satisfaction

Using higher education as a means to climb the social ladder and to improve the quality of one's life is an option that the community college has attempted to make available to everyone. Job satisfaction is an important part of an enjoyable life. Many graduates may trade off maximum salary potential in order to secure a position with significantly greater job satisfaction. If this hypothesis is correct, it is not surprising that educational institutions have been unable to demonstrate a striking financial advantage of pursuing higher education.

There were two items in this study which were used to measure job satisfaction. The first item asked the respondent to compare himself to others with regard to job satisfaction and the second item asked the respondent to estimate the percentage of time he felt satisfied with his job. Only the first item produced statistically significant differences and the discussion that follows refers to the respondents' comparisons of themselves to other people.

The present study revealed that the Quinsigamond graduates were significantly more satisfied with their jobs than the matching high school graduates when high school of origin and the other control variables were held constant. Furthermore, the comparison of the four distinct levels of educational attainment generally indicated that the more education the respondent had, the more satisfied he tended to be with his job. This more comprehensive analysis resulted in two statistically significant results. The bachelor's degree holders as well as the advanced degree holders were found to be significantly more satisfied with their jobs than were high school graduates. The statistically significant difference between the community college graduates and the high school graduates disappeared when high school of origin was not controlled and all of the noncontinuing high school and community college graduates were compared. This disappearance can probably be explained by the fact that this larger group of Quinsigamond graduates included a considerable number of students who fit into the "some college" category. Rather than considering their education complete with the attainment of the associate degree, many of these students attempted to pursue more advanced degrees and had not achieved any additional credentials at the time the survey was conducted. These individuals would then qualify as having "not quite enough" education and would experience the frustration of overeducation in their present job as described by Robert Quinn (1975).

One of the central issues addressed by the literature was the effect of "some college" upon job satisfaction. In general the associate degree has been ignored as a significant credential in these investigations. There is, however, general agreement that conferral of credentials results in the receipt of rewards and that having "not quite enough" education is more of a hindrance than an aid in the realization of these rewards. One of the main questions being investigated in the present study was whether or not the associate degree served as a valid credential and thereby resulted in a significant improvement of job satisfaction on the part of its recipients. The results of this study support the conclusion that the"some college" category should not be defined indiscriminately to include all associate degree graduates.

Many years ago Hoppock (1935) discovered that people were generally reluctant to admit that they were dissatisfied with their jobs no matter what their occupation happened to be. This study has confirmed that finding. Virtually all of the respondents (95%) selected one of the first three options:

1 = I like my job much better than most people like theirs.
2 = I like my job better than most people like theirs.
3 = I like my job about as well as most people like theirs.

In addition, Robert Quinn (1975) found that those individuals who had "obtained some education at a particular institutional level (i.e. high school or college) but who have not obtained the diploma or degree awarded at that level," tended to be significantly less satisfied than those who had obtained their degrees. In comparison, the Quinsigamond graduates who have less than a bachelor's degree (an associate degree or an associate degree plus) had a mean job satisfaction score of 2.21 and this was not significantly different from that of the noncontinuing high school graduates who had an average score on this item of 2.43. It is this combined job satisfaction of all of the individuals in the "some college" category which Robert Quinn (1975) has referred to in his study. However, when the noncontinuing Quinsigamond graduates, who were matched with a comparison group of noncontinuing high school graduates, were selected from all of those individuals in this study who could be described as having "some college", the results were definitely inconsistent with Quinn's findings. The matched group of noncontinuing Quinsigamond graduates had the highest level of job satisfaction of any group in this study with an average score of 1.75 on the item measuring this variable as compared to the mean score on this item of 2.43 for the matched group of high school graduates. Furthermore, the second highest level of job satisfaction was obtained by those respondents who reported having completed either the bachelor's degree or an advanced degree, this group having a mean score of 1.98 on this item. On the basis of the SES at the time of high school graduation, it seems safe to say that the majority of the respondents in this study would not have been able to achieve the advantages of the bachelor's or the advanced degree without the opportunity afforded by the community college. The conclusion that the associate degree offers the most for the money is therefore once again supported by the results of this study.

Overall, the present study indicates that job satisfaction appears to be favorably influenced by education beyond high school as far as Quinsigamond's alumni are concerned and it raises serious doubt as to the appropriateness of including associate degree holders in the category of "some college", a category which has been associated with such undesirable characteristics as downward socioeconomic mobility and significantly lower job satisfaction.

Miscellaneous Outcomes

One unexpected result emerging from the present study that might be used as a measure of the relative quality of the lives of the respondents was the degree of self-perceived health. Responses consistently favored those with more education. These differences were often statistically significant (see Table 27) and, as with job satisfaction, tended to occur at the positive end of the scale. Almost all of the respondents (94%) indicated that they enjoyed either good or excellent health since graduation from high school. The higher the achieved level of education, the more significant the difference in self-perceived health. (see also Table 27)

Another unexpected result of this study was the high percentage of graduates who have actually obtained educational credentials beyond the associate degree. Approximately two out of every three graduates obtained the bachelor's degree within ten years of graduation from Quinsigamond Community College. This percentage is far in excess of what has been traditionally expected. Furthermore, the number of graduates to achieve at least one degree beyond the bachelor's was also quite encouraging and surprising. Approximately fifteen percent of all of the respondents reported having received at least one advanced degree. When the 1967 and 1968 graduates were used, by themselves, to estimate a projected number of Quinsigamond's alumni that may attain more advanced degrees, the percentage of those expected to earn at least one advanced degree jumped to approximately one in four. It appears, therefore, that Quinsigamond Community College has successfully provided the opportunity for advancement through educational achievement to her alumni. This result is in direct opposition to the assumption underlying much of the literature concerning the relationship between educational level and other variables. The category "some college" is apparently not a permanent condition, and there is probably a great deal of difference between an individual who has dropped out and given up and one who has been steadily and successfully progressing toward another degree. The open door of the community college makes this second alternative possible for more and more individuals in our society.

It should be noted at this point that only one respondent out of over two hundred Quinsigamond graduates considered himself to be Black and none of the respondents considered themselves Chicanos or American Indians. Minority groups apparently did not take advantage of the opportunities offered by Quinsigamond during its earliest years. Yet this is one of the areas in which the potential of the community college is the greatest in terms of its contribution to the community. Future research efforts should seek to establish the extent to which Quinsigamond has served minority populations.

Two-thirds of the Quinsigamond graduates reported that they liked their jobs "much better than" or "better than most people like theirs." Given the belief that job satisfaction contributes significantly to the quality of a person's life, this is a good indication that Quinsigamond Community College has made a positive contribution in this area as well.

Conclusions

Inferences from the data presented by this study are as follows:

1. Community college graduates obtain jobs with higher socioeconomic status and experience greater job satisfaction than high school graduates.
2. Quinsigamond Community College has emerged as a very effective "democratizing agent." The conclusions of Baldi De Mandilovitch and others that the payoff of higher education is small indeed were based upon the assumption that those who have "not quite enough" education are permanently stuck in that category.

Our evidence, however, shows that it is becoming easier for students to seek post-secondary education and to view the achievement of a degree as something in progress rather than something beyond reasonable hope.

3. Yearly income is not a sufficient nor accurate measure of the complex effects of higher education upon the career achievements of college graduates.
4. Differences in job satisfaction between various levels of education tend to be in terms of the degree of enthusiasm for work.
5. The recommendation by certain researchers that inexpensive two-year colleges should be maintained solely for students of higher academic aptitude are inappropriate given the data gathered from Quinsigamond's graduates. The traditional predictors of academic achievement when applied to Quinsigamond's graduates are not accurate.
6. The associate degree offers the most for the money when the variables of time invested, student funds, tax dollars, SES achieved, yearly income and job satisfaction are taken into consideration.
7. A community college education has a lifelong influence upon those who receive it and research with regard to community colleges should reflect this long-term influence in order to properly evaluate the role of the community college in society.

8. The recent shift toward programs designed to serve the needs of graduates immediately after graduation is not wise in light of the eventual potential of such a high percentage of Quinsigamond Community College graduates.

9. Factual studies and not theoretical projections should determine the direction of our educational institutions. The detailed records of alumni must be maintained in good order if this is to be accomplished. These records should not be destroyed for the convenience of administrators who are in fear of the effects of legislation relating to the rights of students.

10. Failure to study the associate degree as a valid credential has lead to inaccurate generalizations in the literature.

Recommendations

Additional research should be undertaken in the following areas:

1. Community college graduates should be retested to determine whether they have acquired new skills while attending a community college, or whether the difference between those who graduate and those who do not is really only a matter of perseverance.

2. Follow-up studies of uninvestigated Quinsigamond alumni should be undertaken. The female graduates of the first six classes and the male and female graduates not covered by this study should be surveyed.

3. A longitudinal study of Quinsigamond's first six graduating classes should be undertaken to determine the extent to which time-out-of-school is a contributing factor to increased income, status, and job satisfaction.
4. The relationship between program of study and the variables of income, job satisfaction and status should be investigated.

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APPENDIX

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE DEPARTMENT
STATE HOUSE . BOSTON 02133

MICHAEL S. DUKAKIS
GOVERNOR

December 30, 1976

Eugene W. Butler
Assistant Professor of Psychology
Quinsigamond Community College
670 West Boylston Street
Worcester, Massachusetts 01606

Dear Professor Butler:

I appreciate your letter, and I would like to offer these few words of support for your comparison study of high school and community college graduates. I know that the Commonwealth will appreciate any insights you attain as to the impact of community college educations, and I hope that the graduates of Quinsigamond Community College will take the time to assist you with your questionnaires.

Best wishes for the success of your project.

Sincerely,

Mike Dukakis

Michael S. Dukakis

MSD/[illegible]

WORCESTER CONSORTIUM FOR
Higher Education, Inc.

December 13, 1976

To whom it may concern:

I think that Professor Butler's study could tell us a great deal about the value of community colleges. I urge you to respond to his questionnaire to determine the answers he seeks.

Sincerely,

Lawrence E. Fox
Executive Director

[illegible], Massachusetts 01609 • 617 754 [illegible]

OFFICE OF EDUCATION

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGIONAL OFFICE
REGION I
JOHN F. KENNEDY FEDERAL BUILDING
BOSTON, MASSACHUSETTS 02203

December 30, 1976

Mr. Eugene Wheeler Butler
Asst. Professor of Psychology
Quinsigamond Community College
670 West Boylston Street
Worcester, Massachusetts 01606

Dear Mr. Butler:

Thank you for forwarding a copy of an abstract of your dissertation proposal.

As you may already know the Education Amendments of 1976, which include Title II - Vocational Education [illegible] amendments of the Vocational Education Act of 1963, urge active participation of community colleges and other post-secondary institutions.

Your comparison study of the community college graduates with similar high school graduates that have not pursued any college degree will be very helpful in determining the efficacy of the two year degree program.

We are happy to endorse your study.

Sincerely yours,

Nicholas J. [illegible]
Acting Assistant Regional
Commissioner
Occupational and Adult
Education

DEAR PEOPLE:

YOUR HELP IS URGENTLY NEEDED.

QUINSIGAMOND COMMUNITY COLLEGE NEEDS THE INFORMATION PROVIDED IN THE ATTACHED QUESTIONNAIRE TO DETERMINE THE ANSWERS TO SOME VITALLY IMPORTANT QUESTIONS. THIS PROJECT IS AIMED AT ASSESSING THE PRACTICAL VALUE OF EDUCATION WITHIN THE COMMONWEALTH OF MASSACHUSETTS. THE PURPOSE OF THIS STUDY IS TO DETERMINE THE DEGREE OF JOB SATISFACTION AND THE FINANCIAL STATUS OBTAINED BY COMMUNITY COLLEGE ALUMNI AFTER SEVERAL YEARS OF WORK EXPERIENCE. YOUR OCCUPATIONAL HISTORY WILL PROVIDE THOSE IN RESPONSIBLE POSITIONS WITH VALUABLE INFORMATION CONCERNING THE EFFECTIVENESS OF THE TAX DOLLARS BEING SPENT EACH YEAR BY THE COMMONWEALTH TO PROVIDE THIS SERVICE TO ITS CITIZENS.

ALL THAT YOU NEED DO TO RENDER THIS WORTHWHILE CONTRIBUTION TO EDUCATION IS COMPLETE THE FOLLOWING QUESTIONNAIRE. WON'T YOU PLEASE TAKE TEN MINUTES NOW AND PROVIDE THE INFORMATION NEEDED AND RETURN THE FORM IN TODAY'S MAIL?

THANK YOU FOR THIS VERY IMPORTANT CONTRIBUTION. YOU MAY BE ASSURED THAT AFTER THE DATA ARE TRANSFERRED TO COMPUTER CARDS, THIS QUESTIONNAIRE WILL BE DESTROYED AND YOUR ANONYMITY WILL BE GUARANTEED.

SINCERELY,

EUGENE W. BUTLER
PRINCIPAL INVESTIGATOR

1.WHAT IS THE TITLE OF YOUR PRESENT JOB?________________ FROM________ TO________

2.WHAT IS THE TITLE OF YOUR NEXT PREVIOUS JOB?________________ FROM________ TO________

3.CHECK ONE OF THE FOLLOWING TO SHOW HOW YOU THINK YOU COMPARE WITH OTHER PEOPLE.
A________I LIKE MY WORK MUCH BETTER THAN MOST PEOPLE LIKE THEIRS.
B________I LIKE MY WORK BETTER THAN MOST PEOPLE LIKE THEIRS.
C________I LIKE MY WORK ABOUT AS WELL AS MOST PEOPLE LIKE THEIRS.
D________I DISLIKE MY WORK MORE THAN MOST PEOPLE DISLIKE THEIRS.
E________I DISLIKE MY WORK MUCH MORE THAN MOST PEOPLE DISLIKE THEIRS.

4.CHECK ONE OF THE FOLLOWING TO SHOW HOW MUCH OF THE TIME YOU FEEL SATISFIED WITH YOUR JOB.
A________MOST OF THE TIME B________A GOOD DEAL OF THE TIME C________ABOUT HALF OF THE TIME
D________OCCASIONALLY E________SELDOM

5.PUT A CHECK BEFORE THE CATEGORY WHICH MOST ACCURATELY DESCRIBES YOUR TOTAL, PERSONAL INCOME IN 1975 BEFORE TAXES.
A________LESS THAN $5,000 B________LESS THAN $10,000 C________LESS THAN $15,000
D________LESS THAN $20,000 E________LESS THAN $25,000 F________$25,000 or more

6.WAS THERE ANYTHING UNUSUAL (E.G. SICKNESS, LAYOFFS, PROMOTIONS, UNEMPLOYMENT) ABOUT YOUR INCOME IN 1975 AS REPORTED IN QUESTION #5 ABOVE?
CIRCLE ONE: YES NO IF YES, PLEASE EXPLAIN.________________

7. IF YOU ANSWERED YES TO QUESTION #6 ABOVE, PUT A CHECK BEFORE THE CATEGORY WHICH MOST ACCURATELY DESCRIBES YOUR TOTAL, PERSONAL INCOME IN 1974 BEFORE TAXES.

A__________LESS THAN $5,000 B__________LESS THAN $10,000 C__________LESS THAN $15,000

D__________LESS THAN $20,000 E__________LESS THAN $25.000 F__________$25,000 or more

8. ARE YOU A HIGH SCHOOL GRADUATE? CIRCLE ONE: YES NO WHAT HIGH SCHOOL?__________________

9. HAVE YOU SUCCESSFULLY COMPLETED ONE, TWO, OR THREE COLLEGE COURSES AS A PART-TIME STUDENT?........YES NO

10. HAVE YOU SUCCESSFULLY COMPLETED MORE THAN THREE COLLEGE COURSES AS A PART-TIME STUDENT?..........YES NO

11. HAVE YOU ATTENDED A TWO-YEAR COLLEGE AS A FULL-TIME STUDENT WITHOUT GRADUATING?..................YES NO

12. HAVE YOU EARNED A TWO-YEAR COLLEGE DIPLOMA?...YES NO

IF YES TO 9,10,11,or 12, WHAT COLLEGE?____

13. HAVE YOU ENROLLED IN A FOUR-YEAR COLLEGE AND SUCCESSFULLY COMPLETED ONE, TWO, OR THREE YEARS?

IF YES, HOW MANY YEARS AND WHAT COLLEGE?____

14. HAVE YOU EARNED THE BACHELOR'S DEGREE? IF YES, WHAT COLLEGE?______________________YES NO

15. HAVE YOU EARNED A DEGREE BEYOND THE BACHELOR'S? IF YES, WHAT DEGREE AND WHAT COLLEGE?...........YES NO

____

16. WHAT WAS YOUR FATHER'S JOB TITLE AT THE TIME YOU GRADUATED FROM HIGH SCHOOL?

____

17. WHAT WAS YOUR MOTHER'S JOB TITLE AT THE TIME YOU GRADUATED FROM HIGH SCHOOL?

____

18. HOW MANY BROTHERS AND SISTERS DO YOU HAVE? CIRCLE ONE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14

19. HOW MANY BROTHERS AND SISTERS ARE OLDER THAN YOU? CIRCLE ONE: 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14

20. ARE YOU A VETERAN? CIRCLE ONE: YES NO DATES OF SERVICE: FROM______________TO______________

21. DESCRIBE YOUR HEALTH SINCE GRADUATION FROM HIGH SCHOOL. CIRCLE ONE: EXCELLENT GOOD AVERAGE FAIR POOR

22. HOW MANY MONTHS HAVE YOU BEEN OUT OF WORK BECAUSE OF ILLNESS SINCE GRADUATION FROM HIGH SCHOOL?

CIRCLE ONE: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 NONE OTHER________

23. DID YOU RECEIVE YOUR TRAINING FOR THE JOB IN WHICH YOU ARE NOW EMPLOYED IN: CHECK ONE BELOW

____HIGH SCHOOL ARMED FORCES ____

____TECHNICAL INSTITUTE IN PLANT TRAINING____

____TWO-YEAR COLLEGE APPRENTICESHIP ____

____FOUR-YEAR COLLEGE OTHER............____ PLEASE EXPLAIN.______________________________

____

24. MARITAL STATUS CHECK ONE: (OR MORE)

_____SINGLE SEPARATED _____

_____MARRIED REMARRIED _____

_____DIVORCED OTHER......_____ PLEASE EXPLAIN______________________________

____

25. DO YOU CONSIDER YOURSELF A MEMBER OF A MINORITY GROUP? CIRCLE ONE: YES NO

IF YES, CHECK ONE: BLACK__________ AMERICAN INDIAN__________ CHICANO__________

OTHER__________ PLEASE EXPLAIN______________________________________

_____ ______________________________________

THE COMMONWEALTH OF MASSACHUSETTS
EXECUTIVE DEPARTMENT
STATE HOUSE • BOSTON 02133

MICHAEL S. DUKAKIS
GOVERNOR

December 20, 1976

Eugene W. Butler
Assistant Professor of Psychology
Quinsigamond Community College
670 West Boylston Street
Worcester, Massachusetts 01606

Dear Professor Butler:

I appreciate your letter, and I would like to offer these few words of support for your comparison study of high school and community college graduates. I know that the Commonwealth will appreciate any insights you attain as to the impact of community college educations, and I hope that the graduates of Quinsigamond Community College will take the time to assist you with your questionnaires.

Best wishes for the success of your project.

Sincerely,

Mike Dukakis

Michael S. Dukakis

MSD/emf

DEPARTMENT OF HEALTH, EDUCATION, AND WELFARE
REGIONAL OFFICE
REGION I
JOHN F. KENNEDY FEDERAL BUILDING,
BOSTON, MASSACHUSETTS 02203

OFFICE OF
EDUCATION

December 20, 1976

Mr. Eugene Wheeler Butler
Asst. Professor of Psychology
Quinsigamond Community College
670 West Boylston Street
Worcester, Massachusetts 01606

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Your comparison study of the community college graduates with similar high school graduates that have not pursued any college degree will be very helpful in determining the efficacy of the two year degree program.

We are happy to endorse your study.

Sincerely yours,

Nicholas J. Hondrogen

Nicholas J. Hondrogen
Acting Assistant Regional
Commissioner
Occupational and Adult
Education

Worcester Consortium
for
Higher Education, Inc.

December 13, 1976

To whom it may concern:

I think that Professor Butler's study could tell us a great deal about the value of community colleges. I urge you to respond to his questionnaire to determine the answers he seeks.

Sincerely,

Lawrence E. Fox
Executive Director

LEF/bc

300 Mechanics Tower • Worcester Center, Massachusetts 01608 • 617-754-6829

The Commonwealth of Massachusetts

Quinsigamond Community College

670 West Boylston Street, Worcester 01606

TELEPHONE: 853-2300

Office of the President

October 18, 1976

To Whom It May Concern:

This letter of endorsement is designed to introduce you to Professor Eugene W. Butler, Assistant Professor of Psychology at Quinsigamond Community College. Professor Butler is currently involved in a project which is tentatively entitled: "The Socio-Economic Status and Job Satisfaction of Community College Graduates as Compared to High School Graduates."

I hope that in the interest of professional courtesy and the potential benefits of Professor Butler's completed study to all those concerned, you will do all in your power to cooperate with him as he attempts to gather the research data.

I am aware that there are certain Federal and State laws pertaining to the availability of student records. Neither Professor Butler nor I would expect you to ignore these statutes. We would only ask that you do what you can to facilitate the completion of this project.

Thank you very much for your cooperation in this regard.

Sincerely,

Richard S. Offenberg

Richard S. Offenberg
Interim President

RSO/sb

Wachusett Regional High School
Holden, Massachusetts
•
[illegible]

Counselors

Howard [illegible]
David [illegible]
Gary [illegible]
John [illegible]
Barbara [illegible]

Paul T. Audette
Director of Guidance

May 9, 1977

Dear Graduate,

Enclosed is a questionnaire for selected alumni of Wachusett Regional High School intended to assess the effectiveness of programming at Quinsigamond Community College.

I strongly urge you to take the few minutes required to answer the questions. Your responses are important regardless of whether or not you continued your education after leaving Wachusett; those responses will result not only in better programs at Quinsigamond but also better guidance for Wachusett students.

Thank you very much.

Sincerely
Paul T Audette
Paul T. Audette
Director of Guidance

HIGH SCHOOL PERSONNEL INTERVIEW FORM

____________________HIGH SCHOOL NAME

__________DATE

__________TELEPHONE #

____

____________________ADDRESS

____________________CONTACT PERSON

____________________CONTACT'S TITLE

__________# OF SUBJECTS FROM THIS HIGH SCHOOL

______INTRODUCE SELF

______EXPLAIN PURPOSE OF STUDY

______COMPARISON OF HIGH SCHOOL AND COMMUNITY COLLEGE GRADUATES WHO HAVE NOT PURSUED THEIR EDUCATION BEYOND THE HIGH SCHOOL DIPLOMA OR THE ASSOCIATE DEGREE.

______MOST IMPORTANT VARIABLES ARE SOCIOECONOMIC STATUS AND JOB SATISFACTION

______WILL MAIL______QUESTIONNAIRES TO H.S. GRADUATES?

______WE WILL MAIL PACKAGE OF MATERIALS BY__________.
DATE

______WE WILL CONFIRM THE ARRIVAL OF THESE MATERIALS ON __________ AND ANSWER ANY QUESTIONS YOU MAY HAVE
DATE ABOUT PROCEDURES ON THAT DATE.

______PLEASE KEEP A LIST OF THE NAMES, ADDRESSES, AND PHONE NUMBERS AS WELL AS THE CLASS RANKS OF ALL THOSE HIGH SCHOOL GRADUATES TO WHOM QUESTIONNAIRES ARE SENT.

______RESPONDENTS WILL BE PROVIDED A RELEASE FORM FOR THE CLASS RANK INFORMATION.

HIGH SCHOOL CONFIRMATION CALL
INTERVIEW FORM

______PACKAGE ARRIVED?

______ANY QUESTIONS?________________________________

____

____

______PLEASE KEEP LIST OF NAMES, ADDRESSES, TELEPHONE NUMBERS, AND EXACT GRADUATING CLASS RANKS SO THAT THESE WILL BE READILY AVAILABLE AS RESPONDENTS RETURN RELEASE FORMS.

______SEND ME THE CHECK LIST WHEN THE MAILING IS COMPLETED.

______PERSON CONFIRMING________________________.

______HIGH SCHOOL NAME________________________.

NOTES

INSTRUCTIONS

Materials list

_____QUESTIONNAIRES

_____RELEASE FORMS

_____RETURN ENVELOPES WITH POSTAGE ATTACHED

_____COMMEMORATIVE STAMPS

CHECK-OFF LIST

_____TYPE STUDENTS NAMES ON RELEASE FORMS PROVIDED IN THE SPACE PROVIDED

To Match Joe Glutch.......

_____SELECT 10 STUDENTS FROM THE 1965 GRADUATING CLASS WHOSE GRADUATING CLASS RANK WAS CLOSE TO BUT NOT EXACTLY 92/160. All of these STUDENTS MUST BE MALES AND BE SELECTED FROM AMONG THOSE STUDENTS WHOSE CLASS RANK WAS FROM 64 TO 96 OUT OF A GRADUATING CLASS OF 160.

T[illegible]atch John Smith.......

_____SELECT 10 STUDENTS FROM THE 1967 GRADUATING CLASS WHOSE GRADUATING CLASS RANK WAS CLOSE TO BUT NOT EXACTLY 87/176. ALL OF THESE STUDENTS MUST BE MALES AND BE SELECTED FROM AMONG THOSE STUDENTS WHOSE CLASS RANK WAS FROM 70 to 106 OUT OF A GRADUATING CLASS OF 176.

_____TYPE NAMES AND ADDRESSES OF GRADUATES ON #11 ENVELOPES (FOR OUTSIDE ENVELOPES IF AVAILABLE, OTHRRWISE USE #10 ENVELOPES FOR THIS PURPOSE AND FOLD RETURN ENVELOPE SO THAT IT WILL FIT INSIDE.)

_____STAPLE RELEASE FORM ON THE BACK OF THE QUESTIONNAIRE.

_____AFFIX COMMEMORATIVE STAMPS TO OUTSIDE OF OUTSIDE ENVELOPES.

_____STUFF OUTSIDE ENVELOPES WITH RETURN ENVELOPES, QUESTIONNAIRES, RELEASE FORMS, LETTER OF INTRODUCTION FROM HIGH SCHOOL IF DESIRED. THEN CHECK TO SEE IF THE PACKAGE IS LESS THAN ONE OUNCE.

_____IF PACKAGE IS MORE THAN ONE OUNCE, REMOVE LETTER OF INTRODUCTION AND REWEIGH.

_____SEAL OUTSIDE ENVELOPES AND MAIL.

SAMPLE REQUEST FOR FOLLOW-UP EFFORT
AT COOPERATING HIGH SCHOOLS

Date

Dear____________________,

Thank you for the work you have already done on this project. A list of graduates who have already returned questionnaires is attached. Please fill in the required information and return the list in one of the stamped envelopes along with the instruction sheet for the follow-up mailing. You may keep the photostats of the release forms which are enclosed for your own records.

We hope that you will be kind enough to do a follow-up mailing of nonrespondents. As you know high school graduates who have not continued their education beyond their high school diploma are essential to this study. However, this was the group which did not respond. There may well have been a misunderstanding as the questionnaire seems directed at community college graduates. We are attempting to remedy this by means of the cover letter now attached to every questionnaire.

INSTRUCTION SHEET

Please return this when the
follow-up mailing is completed
in one of the envelopes provided.

MATERIALS

# ____QUESTIONNAIRES WITH ATTACHED RELEASE FORMS AND COVER LETTERS

____STAMPED AND ADDRESSED ENVELOPES

____COMMEMORATIVE STAMPS FOR THE OUTSIDE ENVELOPES

CHECK OFF LIST

_____PRINT STUDENTS' NAMES ON THE RELEASE FORMS ALONG WITH THEIR EXACT CLASS RANK, NAME OF HIGH SCHOOL GRADUATED FROM, YEAR OF GRADUATION, AND THE SIZE OF THE GRADUATING CLASS.

_____MAIL QUESTIONNAIRES ONLY TO NONRESPONDENTS OF ORIGINAL SURVEY, OR TO NEW GRADUATES IN THE SAME CLASS WITH ABOUT THE SAME GRADUATING CLASS RANKS AS THE FOLLOWING:

____

_____PLEASE TURN THIS SHEET OVER FOR THE LIST OF GRADUATES WHO HAVE RESPONDED.

THANK YOU SINCERELY,

Eugene W. Butler

Sample Letter Which Accompanied Survey Materials

Sent to Cooperating High Schools

TO: Mr. XXXXX XXXXXXX

FROM: Eugene W. Butler

Thank you for cooperating in this research effort.

Enclosed find______questionnaires, release forms, #10 envelopes with postage attached, and a set of instructions with a check list of procedures.

You should have received this package by ____________ and you will get a confirmation call to verify the arrival of the materials so that any questions concerning procedures may be answered on or about the same date.

Sample Request for Class Rank Data

from Cooperating High Schools

date

Dear Mr. XXXXXXX

Enclosed find five release forms from XXXXXXXX XXXXXX High School. Please provide the required information in the spaces provided below and return this sheet in the enclosed envelope.

XXXXXXXXXXX XXXXXXX.....____'67____....________.....______
Yr. of grad. rank out of

XXXX XXXXXXX............____________....________.....______
Yr. of grad. rank out of

Keep the copies of the release forms for your own records. As further responses are received, the release forms will be sent to you.

Sincerely,

May 3, 1977

The following high school graduates have returned questionnaires and/or release forms. Some of the information required has not been provided. The most significant piece of information missing for the following list of individuals is the name of the high school from which they graduated.

Please review this list and fill in the needed information if any of these students graduated from your high school.

NAME	RANK	OUT OF	CLASS	DATE OF BIRTH	H.S.
XXXXXXXXXXX					
XXXXXXXXXXX					
XXXXXXXXXXX					
XXXXXXXXXXX					
XXXXXXXXXXX					
XXXXXXXXXXX					
XXXXXXXXXXX					
XXXXXXXXXXX					
XXXXXXXXXXX					

We have release forms from all of the above and both release forms and completed questionnaires from XXXXXX XXXXXX, XXXXXXXX XXXXXX, and XXXXXXXX XXXXXX.

COMPUTER DATA CODING FORM

A __________

B __________

C __________

D __________

E __________

F __________

G __________

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EUGENE W. BUTLER
NOVA UNIVERSITY
DOCTORAL HARP

12 CRICKLEWOOD DRIVE
LEICESTER, MA 01524
TELEPHONE 617-892-4909

UNIVERSITY OF CALIF.
LOS ANGELES

MAR 3 1978

CLEARINGHOUSE FOR
JUNIOR COLLEGES

FOR HIGH SCHOOL USE:

NAME____________________

RANK______ OUT OF_______

HIGH SCHOOL______________

CONSENT FOR DISSEMINATION OF STUDENT RECORD TO THIRD PARTY

I give permission for the following 1 (number) third parties to ☐ inspect ☒ receive a copy of

the parts of my/XXXXXXX____________________'s student record noted below:

THIRD PARTIES: Eugene W. Butler — Coordinator of Program Eva
Massachusetts Board of Reg
Community Colleges

REASONS FOR RELEASE OF RECORDS: Comparison study of high school and comm
college graduates.

PARTS OF RECORD TO BE RELEASED:*	PERMISSION GRANTED	PERMISSION DENIED
transcript information (includes identifying information, course titles, grades or their equivalent, and grade level completed)	☐	☐
SAT and college board scores	☐	☐
extracurricular activities	☐	☐
teacher and counselor evaluations and comments	☐	☐
attendance record	☐	☐
other (specify) exact or approximate graduating class rank and total number of students in graduating class.	☒	☐

____________________ ________________ ____________

** Signature of student or parent — Student's class — Date

DATE OF BIRTH____________________
MONTH DAY YEAR

** This form may be signed by a student or former student of fourteen years of age or older, *or* a student in the ni
grade or above, *or* a parent.

* Before seeking the parent's or eligible student's consent, the school should cross out those items which have
been requested by the third party.